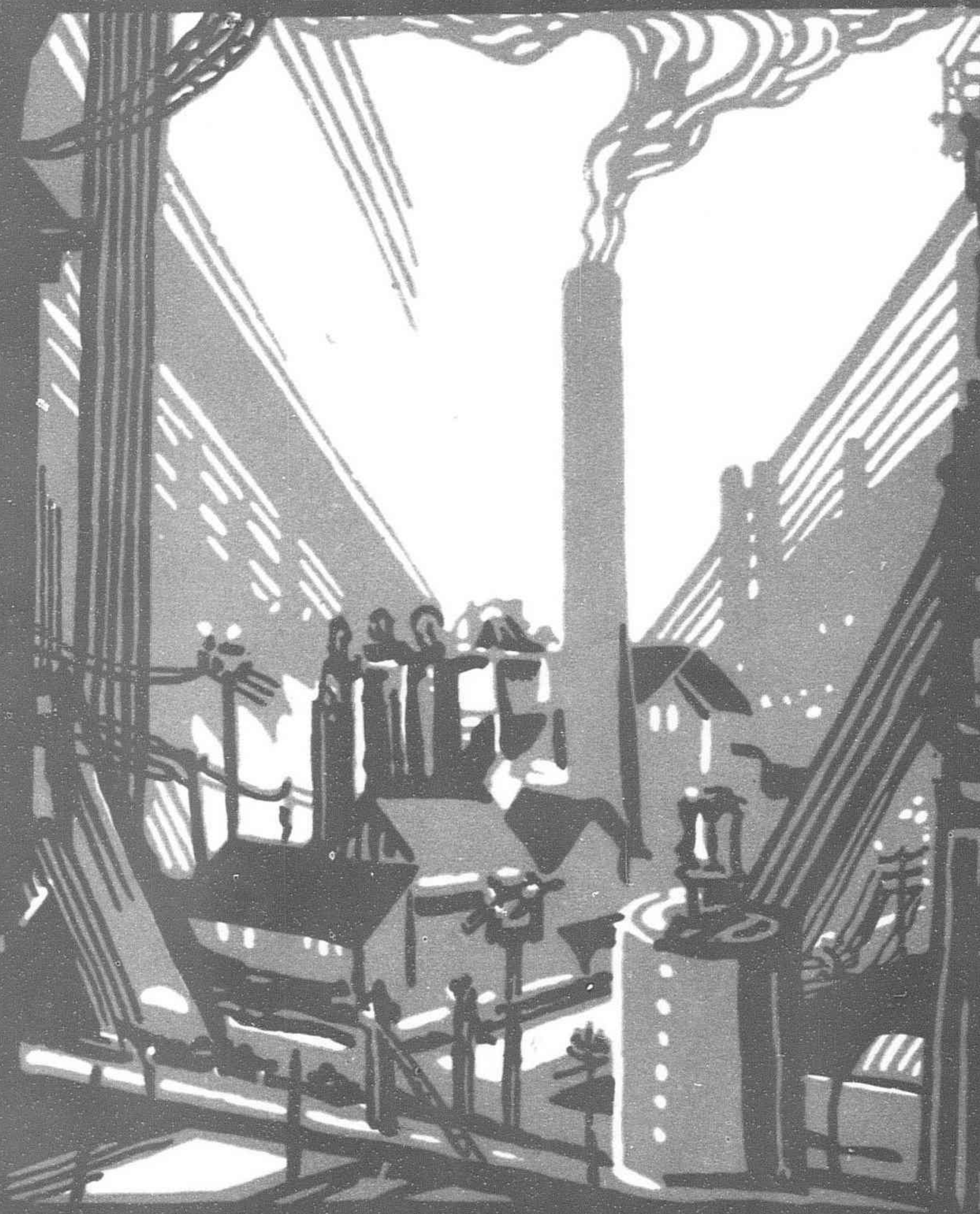


# THE FAR EASTERN

## REVIEW

FOUNDED BY GEORGE BRONSON REA  
35TH YEAR OF PUBLICATION



上海黃浦灘  
第四號

遠東  
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THOSE AMERICANS IN CHINA  
—  
BUILDING CENTRAL CHINA'S  
FUTURE PROSPERITY

Vol. XXXV

DECEMBER, 1939

No. 12



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# The Far Eastern Review

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No. 12

## FAR EASTERN CROSS-CURRENTS

OFFICIALS of the American Embassy at Peking report that much indignation, telegraph charges, stationery and clerical work went into the collecting from Japan of a bill for the shelling of an American mission.

When the Japanese were bombarding a small port on the South China coast preparatory to landing operations it was reported that an American missionary station had been hit.

Preliminary protests were made to the Japanese at various points of contact between them and American diplomatic and consular authorities.

The American navy got into the protest game likewise. From Peking to Shanghai, to Hongkong, to Washington, telegrams and cables were relayed.

Eventually the American consulate-general at Shanghai advised the American Embassy that the Japanese in Hongkong had settled the claim of the damaged American mission in full to the consulate there.

The missionaries had assessed the damage to property and submitted a bill for Hongkong currency, \$13.75, approximately \$4 in American money. This the Japanese paid in full.



WASHINGTON and Tokyo have reached, or are about to reach a temporary understanding in regards to the trade treaty which the United States has abrogated, according to Mr. William Philip Simms in an article in the Scripps-Howard newspapers.

Obtaining his information from both Japanese and American sources, Mr. Simms said that when the present pact lapses commerce between the two countries will continue temporarily subject to change at any time.

"To put it bluntly," Mr. Simms said, "the Japanese will be put on their good behavior. Should they continue to bully Americans in China and molest American interests . . . this temporary arrangement would promptly end.

"At the least, extra duties would be slapped on Japanese imports entering America . . . Should the aggravation become sufficiently serious, we might even boycott Japanese goods. . . . What happens depends almost entirely upon the Japanese army . . . which has been running things of late."

State Department officials said that they were unable to comment on the Grew-Nomura talks in Tokyo beyond the contents of the communiqué issued in Tokyo describing the talks as involving the "general field" of mutual relations.

Although further official information was not available on the important Japanese-American conversations, observers obtained the impression that specific proposals were not under consideration, at least in so far as basic policies toward China are concerned.

Instead, it is believed, the only specific discussions concerned the question of Japanese compensation for certain injuries suffered in China by American interests.

Officials in Washington gave correspondents the impression that the present Tokyo talks are only preliminary to ascertain if a basis exists for the continuation of discussions toward an eventual settlement of Japanese-American problems.

The Japanese Embassy merely said that in the most recent conference between the Japanese Foreign Minister, Admiral K. Nomura, and the American Ambassador, Mr. Joseph C. Grew, involved "many questions connected with the China affair" in the earnest hope of coming to a speedy and happy solution.—United Press.

THE Information Bureau of the Tokyo Foreign Office announced recently the settlement of several cases of damage sustained by American interests during the course of the hostilities in China attributable to the Japanese forces, according to Domei. The news agency also states that negotiations are still under way on a number of similar cases in which accidental damage has been inflicted on American interests in China, the Japanese Embassy in Washington having announced a settlement of some incidents.

According to Information Bureau, details of the cases already settled are as follows:

(1) The case of the University of Shanghai was settled by the Japanese military forces agreeing to withdraw and to return the campus and buildings to the American interests. This agreement was reached in the middle of October.

(2) The case of damage by aerial bombing to the Lutheran Church at Tsimo, in Shantung Province near Tsingtao, being settled by a present of money as a sympathy payment.

(3) Agreement to evacuate the American Church at Linping, in Chekiang Province, reached on July 17 this year.

(4) The Japanese military forces released to its owners the Popular Grove Farm in a suburb of Shanghai on June 20.

(5) A monetary payment was made in the case of the damage by naval bombardment to the property of the United Brethren Church at Chungshan.

(6) A monetary payment made in the case of damage to an American junk off the island of Shameen at Canton.



ADMIRAL Kichisaburo Nomura, Foreign Minister, in his conversation with the United States Ambassador to Tokyo, Mr. Joseph C. Grew, on December 4, promised compensation for damages to American interests in China where they are justified and pledged that greater efforts would be made in the future to avoid similar incidents, authoritative circles said in Tokyo.

Admiral Nomura, they said, reiterated the fact that Japan has no intention to oust third Powers from China, saying that Japan particularly welcomed outside participation economically and culturally.

The Foreign Minister asserted that United States insistence upon the principle of the Open Door in China without considering the realistic angles, the same sources said, was likely to delay settlement of Japan-American problems. Therefore, he was said to have told Mr. Grew, the changed situation should influence the negotiations.

Admiral Nomura countered the claim of the United States listing 600 incidents involving American citizens in China by asserting that Japan recognized about 300.

Admiral Nomura was said to have expressed regret at American emphasis upon the possibility of an embargo against Japan after the Trade treaty has expired in January.

However, it was said, the Foreign Minister did not mention the presence of the American Fleet in the Pacific.

The Foreign Minister was generally believed by the press to have expressed regret over increasing American naval forces in the Pacific.

The *Asahi Shimbun* said it was understood that Admiral Nomura promised Mr. Grew that "hereafter greater efforts" would be made to prevent bombings and indignity incidents in China and the investigation of previous incidents with compensation where it was warranted.



EXAMINATION and search of those entering and leaving the British and French Concessions at Tientsin under the six-months-old Japanese blockade might have been halted three months ago if the United States had not served notice of its desire to terminate the American-Japanese commercial treaty, according to the commander of the Japanese garrison at Tientsin.

The Japanese commander termed the American action "highly regrettable," holding it responsible for obstructing the Anglo-Japanese negotiations then "progressing smoothly" in Tokyo. The American treaty notification was made on July 26. The Anglo-Japanese parleys were suspended in August.

The commander's views were expressed to foreign newspaper correspondents whom he received at his official residence for the second time since the Japanese forces undertook to "isolate" the French and British Concessions last June 14.

The Japanese blockade measure, he said, now can be ended only with a "full and satisfactory" settlement of the issues which brought it on. There are still economic problems to be solved, he said, and the question of the disposal of the Chinese silver holdings in the foreign concessions still remains an obstacle to settlement.

Japan's position, he declared, could be understood easily, if only it were recognized that large-scale military operations are going on in China. This recognition, he insisted, is absolutely essential on the part of any nation seeking to settle China issues with Japan.

The commander expressed gratification over the impending partial withdrawal of British and French forces in North China, which he said will certainly reduce the causes of friction with Japan.



TANGIBLE action by the Japanese Government, backing up its assurances that it would respect the rights and interests of third party Powers in China, was urged by Mr. Kosaku Tamura, former diplomat and well-known commentator on international affairs, in an outspoken article written for the *Chugai Shogyo Shimpō*, Japan's leading commercial daily.

Only by taking definite steps in that direction would Japan be able to eliminate the "deplorable distrust in which the word of the Japanese Government is held in the United States and elsewhere," Mr. Tamura declared. The former diplomat characterized the recent widely-publicized "from-the-horse's-mouth" address by Mr. Joseph C. Grew, American Ambassador to Japan, as the United States' "third warning" to Japan.

Scoring the procrastination shown by the Japanese Foreign Office in answering American protests, the former diplomat pointed out that the United States Government apparently took this Japanese silence as a breach of diplomatic etiquette.

The Japanese Government, Mr. Tamura said, had failed to reply to the American representations for some "unknown reasons," suggesting that Japan has apparently "not been able to decide her course of action towards the United States."

The abrogation by the United States of the American-Japanese Treaty of Commerce and Navigation of 1911, Mr. Tamura said, could be ascribed to resentment at this lack of ordinary courtesy on the part of Japan.

"The United States," Mr. Tamura continued, "are well aware of the fact that the new order which Japan has construed in East Asia with an army of 1,000,000 men and at the cost of ¥20,000,000,000, is fundamentally different from that which prevailed before July 1937."

Remarking that the Chinese Government had prevented the normal expansion of Japanese trade in China both openly and by underhand methods, Mr. Tamura declared that "it is hard to think that the United States Government which makes it a point to uphold the principles of the Open Door and Equal Opportunity should see fit to ask Japan to nullify the efforts she has made during the last 2½ years."

Should the United States have the thought of restoring conditions in East Asia as they were before July 1937, Mr. Tamura declared, "it will be necessary for the Japanese people to make a new determination."

What the Government should do at this juncture is to ascertain whether the statement of Prince Ayamaro Konoye of December 22, last year, still holds good or whether events during the last year necessitate an additional statement.

"Then it should state concretely and in unmistakable language its final demands upon China so that the world may come to realize its mistake in thinking that Japan has no end of designs upon the Asiatic mainland."

SOLUTION of Far Eastern affairs, and particularly the China incident, will be difficult as long as Japan "bows" before the United States, Mr. Reikichi Kita, member of the House of Representatives and Professor at Waseda University, told reporters upon arriving in Yokohama from Vancouver.

Mr. Kita, who left Japan June 28 for America and Europe, attended the International Parliamentary Congress in Oslo in mid-August.

He said he believed Japan has been following in other countries' footsteps—and particularly America's—since the Washington Naval Conference.

The professor-representative made a plea for greater Japanese co-operation with Manchoukuo and suggested that Japan and parts of Europe should form separate federations of states.

"In other words," he went on, "I favor the policy of great regional federations. This principle applies to Japan and to the small countries of Europe, where international relations are complicated from the economic political and military viewpoints."



COMMENTING at length on American-Japanese relations with reference to the current European war, Mr. Walter Lippman, pundit of the *New York Herald Tribune* and other newspapers, observed in his syndicated column that if an improvement in United States-Japanese relations can be effected it certainly should be done now.

"We have every reason for trying to improve radically our relations with Japan, which might yet side with the Soviet Union and Germany and threaten interests of the United States, as well as the possessions of other third Powers in the Far East," the commentator declared.

Referring to the speech delivered by the American Ambassador, Mr. Joseph C. Grew, at Tokyo, in which he set forth American objections to Japan's current policies, Mr. Lippmann declared that the Ambassador's speech ought to be regarded in Japan as well as in the United States as public notice that our relations "will become much worse unless they soon are made much better."

"Ambassador Grew's frankness must not be regarded as a move to provoke a crisis, but as a move to prevent a crisis from developing."

Mr. Lippmann stressed that the Hitler-Stalin friendship pact had not created a good situation for either Japan or the United States. Japan, he said, faces the prospect of becoming weaker in relation to the Soviet and an exhausting war with the latter would enable the Chinese to continue their struggle.

"Japan, faces the Soviet Union which is being greatly strengthened by its political gains in Europe, and perhaps economically by German technicians and organizers. At the same time, Japan faces the risk of an American embargo arising from the Sino-Japanese conflict."

"For the United States, too, the prospect is bad. Although we sympathize greatly with China, we scarcely can wish to see China become a military partner of the U.S.S.R. Nor can we wish to see the Soviet Union undermine Japan and establish itself as the dominant power in Asia. Nor can we look with anything but dismay upon the idea of letting an embargo drive things from bad to worse in our relations with Japan. That would be the road which might well lead to a true world war."

"Finally, we must remember that if things become sufficiently desperate for Japan, there is another solution always conceivable."

"This solution would be similar to what Chancellor Hitler did in Central Europe, namely to come to terms with the Soviets by agreeing upon the partition of China, and even possibly the whole of Asia, and then unite with the Soviet and Germany in order to drive the Western Powers out of the Far East."

"Such a policy might find more popular support in China itself than we like now to believe possible. There is reason to believe, however, that the Japanese would prefer to find a better solution which also would be to our best interest."

"Perhaps the best path to explore would be the question of negotiating a new commercial treaty to replace the one which expires in January, and make it the starting point for a far-reaching settlement of all United States-Japanese differences."

"Nothing could be more worth attempting. A real settlement with Japan would stabilize peace in half the world and would go far toward making it certain that the current war remains strictly localized in Europe."



THAT Japan has no territorial designs on China was reiterated by Premier Abe before a meeting of the China Affairs Board, of which he is president, Domei reports. "What we want from China," he said, "is not territory or interests but the abandonment by China of its policy of combining with the Communists against Japan. We desire to see China continue as a nation and share in the building of a new order in East Asia in collaboration with our country and Manchoukuo."

The session of the Board was held at the official residence of the Premier attended by its vice-presidents, Foreign Minister Kichisaburo Nomura, Finance Minister Kazuo Aoki, War Minister Shunroku Hata and Navy Minister Zengo Yoshida and by Lieutenant-General Heisuke Yanagawa retired, secretary-general of the Board, and Major-General Teiichi Suzuki, director of the political department of the Board, and others.

After announcing Japan's stand in regard to China, Premier Abe designated officials to take up a study of:

(1) How to make known abroad the nature of the new order in East Asia.

(2) How to arrange for cultural institutions in China to conform with the new order.



A BLUNT warning against making "new threats of a one-sided punitive embargo against Japan—which too easily will lead to war," was made by Senator Arthur Vandenberg, Republican of Michigan, in a public statement.

Senator Vandenberg's statement came close on the heels of an earlier statement by Senator Key Pittman, of Nevada, Chairman of the Senate foreign relations committee, who declared that Congress undoubtedly would enact his own resolution empowering the President to place an embargo on exports to Japan unless Japanese-American relations improve before the Commerce and Navigation treaty expires on January 26, 1940.

The Senator from Michigan asserted that instead of erupting new threats, the United States should continue, through Ambassador Joseph C. Grew's judicial candor, plus a realistic, practical and commonsense effort to find a "give and take" basis for a new Japanese-United States treaty.

Without mentioning Senator Pittman by name, Senator Vandenberg declared "saber rattlers won't help either side." He said that negotiations for a new treaty would require "decent Japanese respect for American rights and decent American respect for Japanese rights." He added that the negotiations also would require a mutual understanding of realities.



If the United States declared an economic embargo against Japan, the Tokyo Government would be compelled to negotiate peace with China, the majority of delegates to the Institute of Pacific Relations conference agreed at a recent meeting.

The agreement, which was not unanimous, was revealed in a memorandum received in Washington describing the confidential "study meeting" held by delegates in Virginia Beach, Va.

An American delegate, the memorandum disclosed, suggested that if the American fleet were transferred to Singapore, it would have the same effect as an American embargo against Japan.

There appeared to be no actual belief among the delegates, however, that the United States is prepared to go to war against Japan to force Sino-Japanese peace negotiations, "despite some vigorous intimations that it would be not only to the interest of the United States, but also the duty of America to take a stand on behalf of China," the memorandum said.

The author of the memorandum, Dr. Phillip C. Jessup, chairman of the Institute's governing body, said that if the United States was unwilling to take an active part in events in the Far East, European Powers might be forced to buy from Japan their temporary security in Asia and might be willing to pay the price of appeasement.

"Regarding Manchuria," the memorandum said, "members of the Chinese delegation said that the Assembly resolution adopting the recommendations of the Lytton Commission was still acceptable as a basis for negotiations."

The Chinese members, the memorandum said, are insistent that any settlement of the Sino-Japanese war must be within the framework of the Nine Power Treaty and must be consistent with the territorial integrity of China, "at least of the eighteen provinces south of the Great Wall."

IN a Supplement of "Contemporary Manchuria," which is published by The South Manchuria Railway Company, some comment is offered about the abrogation by the United States of the Trade Treaty with Japan. It is pointed out that on July 27, the U.S. Government suddenly announced its intention of terminating the Treaty of Commerce and Navigation of 1911 with Japan within a period of six months. The American diplomatic stroke came at a time when the Japanese-British negotiation over the Tientsin question at Tokyo was at its height, and exercised considerable political influence over the attitude of the British at the parleys. In addition, the Chungking government picked up courage through America's abrogation, and for a time much pessimism was entertained on the political effects of the step that Washington took.

This treaty was signed at Washington, D.C., in 1911, between Count Yasuya Uchida for Japan and the American Secretary of State, and provides for most-favored-nation treatment.

The United States Government has voiced a desire to terminate the treaty on no few occasions, but no definite reason for such a sudden abrogation is visible. In consequence, it must be regarded as an unfriendly act, a viewpoint which is in agreement with that expressed by the *San Francisco Examiner* in its editorial of July 28, 1939, when it said:

The grave responsibility of President Roosevelt for this sudden shattering of peace time relations with a friendly nation and this sudden provoking of a situation studded with unthinkable dangers is not a matter for evasion.

At the very least, President Roosevelt has provoked a crisis where none of the justifiable elements of a crisis existed, and has provoked the certain resentment and perhaps open enmity of a nation with which the United States is at peace, and has provoked antagonisms which will long endure though calm minds ultimately prevail.

Actually, however, the American action can be interpreted as an anti-Japanese gesture necessitated by certain internal factors, or as a measure to stop the sales of arms, ammunitions, war materials, etc., to Japan prompted by the internal and foreign situation. It is feared that certain economic effects might arise from the abrogation of the treaty in the future.

Generally speaking, Manchoukuo will directly feel no political or economic effects whatsoever as a result of the treaty's abrogation. The main reason for this immunity is the fact that the United States Government has not yet recognized Manchoukuo and no treaty relating to the one which America decided to discard has been signed so far. However, since Manchoukuo was founded through the earnest efforts of Japan and is inseparably linked with her at the present time, there are bound to be some sort of indirect effects which will perhaps necessitate the adoption of a policy to meet the new situation. Manchoukuo's foreign trade values according to years were as follows (in 1,000 yuan):

|                  | 1935   | 1936   | 1937   | 1938   | (First Half<br>1939) |
|------------------|--------|--------|--------|--------|----------------------|
| Exports .. ..    | 15,590 | 16,353 | 18,674 | 11,360 | 8,547                |
| Imports .. ..    | 24,936 | 23,735 | 57,525 | 93,700 | 41,476               |
| Import excess .. | 9,396  | 7,383  | 38,849 | 81,710 | 32,929               |

The import excess has increased tremendously since 1937, due to the great demand for construction materials arising from the execution of the Five-Year Plan. Among the imports of construction materials from Japan must be included appreciable quantities of imports coming to Manchoukuo from foreign sources, but first through Japan. Since both Japan and Manchoukuo are good customers of the United States, and since Japanese and Manchoukuo products are in great demand in America, there is more than a mere guess in assuming that a new reciprocal treaty will be concluded before the six month period is up. Needless to say, the sale of war materials will receive much attention when the question of the new treaty comes up, but much difficulty is bound to be met with in deciding as to what materials fall within the war and construction material categories. This will result in hindering the obtaining of materials needed in carrying out the Five-Year Plan. Furthermore, we must be aware of the possibility that American imports of Manchoukuo products might be curtailed.

With these considerations in mind, the authorities are undoubtedly formulating proper plans and measures to cope with the new situation.



THE fact that Great Britain and the United States would dislike to see a rapprochement between Japan and the Soviet Union is the very reason why Japan should hurry to conclude an agreement with Moscow, in the opinion of Mr. Toshio Shiratori, former Ambassador to Italy, who was called home recently following the conclusion of the German-Soviet pact.

During a talk given recently at a round-table conference conducted by the *Hochi*, Mr. Shiratori declared that "what is not approved by people who have opposed this country at every turn since the outbreak of the China incident is in the interests of this country."

The former Ambassador said that Japan should reject the opinion of those who contend that the conclusion of an agreement with the Soviet Union would preclude friendship with Great Britain and the United States. He added that America, faced with a decision of whether or not to war against Germany, will be left with no power to use against Japan.

Rapprochement with the Soviets does not mean that Japan will accept Communism, Mr. Shiratori declared. Conditions of an agreement, he said, must provide that the Soviet Union will bind itself against promoting Communism in the Far East and will agree to abandon its policy of assisting the Chiang Kai-shek regime. The most urgent diplomatic question facing Japan, in the opinion of Mr. Shiratori, involves the adjustment of relations with the Soviet and the termination of Soviet aid to the Chiang regime so that Moscow will concentrate its activities in the South and West.

Commenting on the "radical change" in the attitude of Japanese toward Germany, Mr. Shiratori said that there were extenuating circumstances for Germany's action in concluding an agreement with the Soviet Union while negotiations were in progress for the conclusion of an "alliance among Japan, Germany and Italy."

Mr. Shiratori believes that there is "not the slightest justification for the anti-German attitude adopted by a section of the Japanese public and that the Japanese should repay Germany and Italy for their assistance to this country at the time of the outbreak of the China incident."



INVESTMENTS in China by third Powers on a sound and fair basis will be welcomed, it was stated by Mr. Kenji Kodama, President of the Central China Development Corporation, in an interview after his arrival in Shanghai recently. He stated further that economic co-operation between China and Japan does not in any way ostracize the due rights and interests of third Powers in China. The present time is the most opportune moment for third Powers to reconsider their past attitudes toward Sino-Japanese relations, he declared.

Mr. Kodama asserted that Sino-Japanese prosperity can only be realized through mutual economic relations reliance and the sharing of responsibility by the two nations. A summary of his statement reads.

"A year has already passed since the establishment of the Central China Development Corporation. The speedy restoration of peace and order, as well as the satisfactory progress of the reconstruction work after the disastrous fighting makes me feel grateful toward the people who have endeavored to rebuild the war stricken areas. At the same time, I wish to pay my highest respects to the Chinese leaders for their high spirits and ideals with which they sought to heal the wounds of war.

"The establishment of a unified central government at the hands of far-sighted leaders is now in sight. This is a matter for sincere congratulation. The forthcoming Sino-Japanese economic co-operation is aimed at the great task of building up a new order in East Asia. The mutual prosperity of Japan and China can only be expected from greater mutual Sino-Japanese reliance and sharing of responsibilities. Only then, and then only, can the foundations for economic stability and the greater development of East Asia be laid down. It is therefore highly necessary that we be firmly determined to overcome all difficulties in the way of achieving our purposes. We shall then be able to realize peace based upon Sino-Japanese solidarity.

"Japan has had to invest large sums in China, as well as render technical assistance to China. It has also had to make great sacrifices for the reconstruction of China. There are wartime measures that have to be changed as the days go by to suit conditions which may arise in the future. These things, of course, will

be improved upon as soon as an unified central government is established in China.

"In conclusion, I wish to emphasize that such economic co-operation between Japan and China does, in no way whatever, ostracize the due rights and interests of third Powers in China. On the contrary, investments in China by third Powers on a sound and fair basis will be welcomed. The present is the most opportune time for third Powers to reconsider their past attitudes toward Sino-Japanese relations."



AMERICA's attitude towards Japan to-day was described as anachronistic by Mr. Soho Tokutomu, veteran Japanese journalist, in his popular column in the *Nichi Nichi Shimbun* chain of newspapers.

Scoring America for endeavoring to keep Japan in the position it occupied at the time of the Washington Conference, the widely-read journalist said he was "deeply disappointed" by the recent speech of Mr. Joseph C. Grew, American Ambassador in Japan.

"I see no need for replying to Ambassador Grew's speech, point by point," the columnist declared "It is enough to draw to the Ambassador's attention the fact that as long as the United States refuses to correct the anachronism of endeavoring to keep Japan in the position it occupied at the time of the Washington Conference for an indefinite period, it will be difficult to restore relations between the two countries."

"The Washington Conference was the outgrowth," he charged, "of an English-American plot to ambush Japan, who was simple enough to take part in the parley.

"The result was that the Five-Five-Three naval ratio among Britain, America and Japan was an arrangement that subsequently led to the conclusion of the nine-power treaty on which America is now basing its demarches to Japan," he continued.

"During the past 17 years not only have there been changes in world situations, but also the situation in East Asia.

"There have been radical changes in the position of Japan in East Asia since the Manchurian Incident. Those who do not understand these new conditions in East Asia have no right to discuss policy in this part of the globe."

He said that Mr. Grew's recent expression of "dissatisfaction and resentment" in regard to Japan's East Asia policy was Japan's exact feelings towards the United States.



It is understood that the British Government, since the start of the European war, has decided to improve its relations with Japan. This attitude has been exemplified in the change of the consular administration at Tientsin, the withdrawal of the gunboats from the Yangtze River and the recent withdrawal of troops from North China.

It is believed that preliminary discussions regarding a compromise formula on various problems centering on the Tientsin dispute are under way. The topics which are understood to be under discussion include an agreement that Britain will not obstruct the circulation of the Federal Reserve Bank-notes and the neutralization of Chinese silver by depositing it in neutral banks.

Prime Minister Neville Chamberlain, Foreign Secretary Lord Halifax, Foreign Under Secretary Richard Butler and Sir Horace Wilson, permanent adviser to the Government, are all attempting a solution of pending Anglo-Japanese questions, but American interests, Foreign Office technicians and League idealists are still trying to help the Chiang Kai-shek Government, it is said.

The former group is said to believe that the recent speech by the American Ambassador to Tokyo, Mr. Joseph Clark Grew, was rather "out of season," and that Britain should be prepared to carry out a practical policy at the risk of some discrepancy with American policy regarding the Far East.

Regarding the popularity of Mr. Wang Ching-wei, who is expected to head the new central government of China, the belief is strengthened here that he is supported by an important part of Chinese public opinion.

It is reported here that Dr. Sun Fo, special emissary to the Moscow Government, who arrived in London recently, saw leaders of the Government to obtain a loan for China. He allegedly was refused on the ground that Britain was at war.



# Fantasy in G Minor

## Theme Song, Without Music, Dedicated to Those Americans in China

By C. J. LAVAL

THIS is the heyday of minorities, so it may be fitting, in the continental mode, to raise a question about that American Minority in China. In much that is written about China the position of these Americans often seems to be confused with such things as the principle of the Open Door, and the maintenance of the integrity of the Government of China, which may or may not be factors in American Far Eastern policy. The destiny and the safety of Americans living in China necessarily are bound up closely with anything Washington may do in shaping a policy in East Asia. If this factor could be subtracted, if, in short, there were no Americans in China, the situation would be changed, maybe for the better. Certainly the problem would be simplified.

A survey of the numerical strength of American armed forces in the Far East through the past decade discloses that over long periods every American in China has had an armed guard provided by the American Government. That is to say, that at the cost to taxpayers at home, every American civilian in China, trader and missionary, has been protected at these times by at least one man in uniform carrying a gun, so it may not be charged that these Americans have been forgotten by their Government. Through all the strife and calamities of the past twenty years in China, save for individuals who courted danger deliberately, or knowingly jeopardized their safety, lives of American civilians in the country rarely have been greatly endangered. Americans have suffered immense material losses, however, and the rate at which these losses have increased has been accelerated since the Japanese began, in the autumn of 1931, what they call "positive action" in East Asia. Especially since warfare between Japan and China began in July, 1937, have American commercial and other interests suffered increasing embarrassment and loss. In this situation may be found the source of much of the present-day outcry over American trade and the charges that the Open Door in China has been slammed shut.

Americans laugh at Japanese assertions that the principle of the Open Door in China has been maintained. They point to losses of crippled commercial enterprises and recall that one American business concern after another has been uprooted and removed from Manchuria since the founding by Japan, in 1932, of the new State of Manchoukuo. Still, in what they contend about the Open Door, the Japanese are not trying to be funny. They are quite sincere in the belief that there has occurred no violation of the Open Door principle. In their turn they point to the main trade currents between the United States and territories under their control in Asia. They explain, for example, that since the founding of Manchoukuo the value of exports from the United States to the new State have more than quadrupled. And they say then, "Wherever the Japanese rule, this always happens."

### The Open Door Principle

It appears to be a habit of mind of some publicists, especially British writers, to lump together the interests of all Occidental powers in connection with matters relating to the Open Door principle, and the world in general has come to think of this principle as a purely American doctrine. This may explain why Americans seem prone at times to see things in China through British eyes, and they fall into the error of giving to the Open Door Notes a treaty status, to which they appear to think the Nation is committed irrevocably. In recent years Americans have elevated the Open Door principle to the plane of a national policy, which on occasion has seemed likely to lead the Nation to War. The Open Door proclamation goes back to British inspiration and authorship; it never received any form of Congressional sanction, never has been anything more than an executive order, and neither the Notes nor the Nine Power Treaty to which they are related carry any guarantee for maintenance of the integrity of the Government of China.

The question of the Open Door in China is a much more serious matter for Great Britain than it is for the United States. The

British stake in China dwarfs that of the United States in a ratio of about ten to one in dollars and cents, besides which, unlike the American position, the large British investment in China is linked closely with all the vast British possessions in the Far East and with far-flung policies that involve the destiny of the British Empire.

Recent credits granted to the Chinese Government by Great Britain and the United States have irked the Government at Tokyo. Resentment flared over this, but for various reasons the Japanese anger has been directed mainly at Great Britain. At the Japanese Foreign Office early in March Sir Robert Leslie Craigie, British Ambassador, is reported to have explained that it became necessary to give financial support to the foreign exchange position of China's national currency to safeguard British investments in China. The American credit of some odd millions was granted probably in some measure to placate American public sympathy with China and possibly also as a gesture of amity and unity of purpose with Great Britain. It appears that the British credits were dictated by business expediency to avert commercial loss and that the American credits were dictated by altruism and British influence. Some observers in the Far East inclined to the Japanese viewpoint that these credits from Anglo-Saxon powers could have no other effect than to prolong the war in China without affecting ultimate results.

The Americans on the ground in China are victims who have felt the sting of changes that have been taking place. From President Coolidge who said in 1927 that "the person and property of a citizen are a part of the general domain of the Nation, even when abroad," on through many utterances of high American officials and statesmen, the pledge is given that "the protection of American lives and properties abroad is a fundamental obligation of government." It follows, therefore, that the situation of these Americans in China must be a primary consideration of the Washington Government in anything it does in China. If the Government adequately could discharge all obligations to these citizens without direct cost to taxpayers at home, this should look like a satisfactory solution of the problem. It might even seem to be desirable, if these things could be done with a profit and with removal of many anxieties that lately have set the Nation to building warships on a most expensive scale.

A large part of the world is speculating anxiously to-day over what the United States Government may do in the Far East. "Americans are a funny folk," wrote Professor Tyler Dennett, former Professor of International Relations at Princeton University, in the *Annals of the American Academy of Political and Social Science* in 1933. "They applaud lofty moral sentiment, but they are rarely ready, outside of the Western Hemisphere, to take the next step, to make effective the sentiment they applaud. The time comes when they are asked to put up or shut up. They do neither. They will not put up the force without which sentiments in this wicked world are still sentiments only, but neither will they shut up. They keep on talking about the sentiments as though wishes were horses."

### Needs of the Hour

Events in East Asia, now linked loosely with European affairs, have begun to move ever more swiftly. Never has the need been so pressing for the American attitude toward East Asia to assume a precision and direction, hitherto lacking. From the turn of the century, consistently, we have marched our soldiers up the hill, then marched them down again, arriving at length to-day nowhere in particular. Before events can compel a particular course of action, leaving no choice, it seems Washington should decide exactly what it wants in the Far East, then go after it. Lofty sentiments, however boldly enunciated, wishful protesting, or letter-writing, cannot be of much help in this situation. Whenever highly placed American personages go into a Donald Duck routine on foreign affairs, they may achieve ends that are acceptable and satisfying with the electorate at Home; abroad the effects of what they say



often are exactly opposite of what they seemed to be aiming at, and engender bitterness and resentment, or worse—ridicule. Such talk, to command respect, must be followed promptly by the bayonets and the warcraft. If the force to give effect to what is said is withheld mere words can have value only within the States. It seems certain that events in the Far East will not permit us to hold aloof in a "do-nothing" pose, or let affairs drift, leaving Washington "watching the situation closely," as the newspapers say. It can be accepted that the clock in China cannot be turned back. Any hope that former conditions in this country can be restored is worse than futile. It is logical to deduce from past events that the foreign concessions, many Anglo-Saxon and other alien interests, treaties and their provisions, all, are due to go overboard. It doesn't matter in the least how the war in China ends; these developments loom ahead.

One may be permitted, from a simple American viewpoint, painstakingly to examine all sides of this Far Eastern question, survey existing actualities, and, without presuming to advocate anything at all, or imply conclusions, attempt to analyse possibilities of the situation.

If through some act of grace, or with foreign intervention, China should emerge victor over Japan, the Chinese Government can be expected promptly to take up again with renewed vigor and assurance procedure where it was left off eight years ago. In 1931 China had gone a long way toward the goal of eliminating the foreigner and his works from the scene. Dr. C. T. Wang, then Foreign Minister, later Ambassador at Washington, had proclaimed the abrogation of foreign treaties—the "unequal treaties," the Chinese call them. The date was fixed when by unilateral action of China these treaties should become invalid, and when special rights of aliens in the land should lapse. At that time the Chinese Foreign Minister had been so successful in carrying forward the purposes of his Government that actual assent had been given by Great Britain in the form of an initialled agreement to final surrender of British extraterritorial rights accorded by treaties. This marked a climax, for at that time Britain already had yielded back to China valuable holdings and concessions. What decisions may have been reached in Sino-American negotiations that were being held at that time in Washington have not been disclosed. Assuredly, in the surrender of extraterritorial rights and in the abrogation of treaties displeasing to China the United States would not have lagged behind Great Britain. In the field of granting favors and concessions to the Chinese the Americans usually have marched out in the lead—and how we love it! Precedent and all conditions inevitably would have put us in line with the British in giving up treaty rights in 1931, but it was just then that Japan upset the apple-cart in Manchuria. This forced a general revaluation of the situation, which certainly would again take shape in sterner form, if China won the war.

If Japan succeeds in the task of subduing China, or if China and Japan decide to call quits to the fighting, then the trend of events in China may be expected to follow a pattern like that laid down in Korea and Manchuria, with a vigorous house-cleaning and renovation done efficiently according to Japanese formula. While undeniably effective, and although direct American trade with Asia might thrive under such circumstances, the case of the Americans marooned in the land would not be served advantageously.

Another contingency is intervention in China followed by domination of a third power or group of powers. If the third power should be Russia, we know the answer, for it is written in the history, both of the Czars and of the Soviets. Inclusion of Great Britain and France in the intervention of a combination of powers probably can be ruled out at this time owing to the European situation.

### Washington in the Pivotal Place

The United States is in a position to act decisively in the Far East. This would be a positive line of policy from which, once begun, there could be no turning back. It may have merit. Such a departure, admittedly, would not be in consonance with national thought trends through recent years, but none can deny that extraordinary changes in national viewpoint can be contrived and can and do take place, sometimes almost overnight. Americans of former generations remember when "prohibition never would come to the United States," and when "the country never would go to war." Quite consistently we could save China just as we "freed Cuba," and later "saved the Filipinos," and, still

later, "made the world safe for democracy." It is within range of possibility, therefore, and the omens all are favorable, for the United States to strike boldly for a dominant place in the Far Eastern sunshine—if Uncle Sam wants to do it.

If the interests of the Nation dictate that in East Asia the ends desirable are enforced peace where through the centuries there never before has been peace, and expansion, territory and glittering prospects for posterity, the present is the appointed time to act. To begin such a course we should first have to go into reverse with some of the lines of policy we have been following lately. And we ought to be able also to garner certain immediate gains and advantages from interested neighbors anticipating benefits. But we shall have to go the whole way; half measures will not serve.

In the decade before the Open Door Notes were issued Great Britain, then anxious over German and Russian encroachments in Asia, sought on a number of occasions to induce the United States to take action in China calculated to keep affairs in general undisturbed in that part of the world. The Washington Government repulsed these British efforts to thrust American influence into the Far East, although John Hay himself while still serving as Ambassador at the Court of St. James wrote to President McKinley advocating acceptance of the British suggestions.

After we had come into control of the Philippines and John Hay had become Secretary of State, an event singularly fortunate for the United States took place. Great Britain cleared out of the Panama Canal region and withdrew from the Caribbean where British political influence long had been paramount. British diplomacy is not wont to yield something for nothing. The Open Door Notes which had been dispatched by Secretary of State Hay sometime earlier, furnish an answer to the riddle. It was a good trade for the American Government, although our interests in the Far East, where Great Britain was solidly entrenched, amounted to little or nothing at all.

Possibly the American Government of this day can look back on these incidents of forty years ago as a precedent that appropriately might be invoked for new uses. The Anglo-American positions *vis-à-vis* the Far Eastern situation are very much what they were in that earlier time at the turn of the century, and an important new factor is that France along with Great Britain is vitally concerned to-day in Far Eastern affairs. The circumstance that Great Britain and France are preoccupied in Europe makes the American position advantageous. If American elements at Home oppose intervention in China and offer the more or less unanswerable argument that "there is nothing we want, and nothing we can gain in The Far East," it could be pointed out that we moved into China where we had no real interests on that first occasion, and profited handsomely. We should have in hand something of real worth, however, to buttress such a statement and complete a parallel.

### A Historical Precedent

It may be neither polite nor expedient to drag out again at this time questions about obligations of some years standing that continue to await adjustment. Even allusions to this subject seem to have an indecent sound in British and French ears, and this matter can well be held in abeyance for more timely occasions that should unfold. American intervention in China would greatly please both Great Britain and France, and as China, too, would welcome such action, it should find favor in that stratum of American public opinion that has so ardently espoused the Chinese cause. Such intervention, if they survived, would adjust affairs for the Americans in China; it would safeguard the extensive British and French interests in the Far East, and, inevitably it would plunge us into a major conflict.

American statecraft has found cause lately to cock an apprehensive eye at South America where the Nazi-Fascist thrust has created grave new problems for Washington. Our interests there are vital, undoubtedly. Although we have no compelling concerns in the Far East, as happened before, we should be able advantageously to link related British, French and Chinese necessities in the Far East with our needs in our own half of the world. Our naval pundits shaping plans for possible eventualities in South America would find themselves strengthened immeasurably with the possession of harbors and bases in the West Indies and on the South American coast. Britain and France are richly endowed



in these parts. There are Georgetown and Cayenne on the Guiana Coast, Trinidad, Jamaica, the Bermudas and, under the Tricolor, Guadeloupe and Martinique. And herein, too, may be found at length the solution of the vexing question of those obligations awaiting adjustment. It would be well, too, to keep in mind in this general connection that the Netherlands have exceedingly precious holdings in the Far East that would share British and French benefits derived from American action in the Pacific, and the Dutch colonies of Surinam, in Guiana, and Curacao would have immense strategic value for the American navy in the Caribbean and along the South American coast.

Virtuously, Americans ever have refused to accept anything in the nature of land grants from China, so there are not and never have been any American concessions in China. We have been content to establish ourselves in China in the areas of other powers that have been less punctilious than we in dealing with the Chinese, accepting the hospitality and protection of these powers, but ever vigilant to insist that our individual rights under treaties equal the rights of other aliens in the land. It would be inconsistent, therefore, and it would be a tactical error, too, to permit China at this late day to give us any territory. We could go in for Chinese real estate in a big way, however, and probably without getting snarled up in any "most favored nation" clauses. It would be hard to imagine what China would not be willing to give just now to humble her Nipponese adversary and get an American policeman with his night-stick stationed right out in her front yard. But we couldn't let China give us the premises outright. While keeping clear of British and French spheres in the south, for nominal considerations, we might buy the Provinces of Kiangsu and Chekiang, including Nanking and the Port of Shanghai, which command the trade of the Yangtze Valley; also a strip of the Fukien Coast with the ports of Foochow, Amoy and Swatow and Hainan Island; and, in the north, the Kiaochow Peninsula in Shantung with the Ports of Chefoo and Tsingtao. China clings to the belief that she still owns Manchuria, and, assuredly, she would be glad to give us a conveyance of ownership to this vast territory. This could as well as anything else serve as a cause to start the gun play.

### Essential Preliminaries

In our initial moves in the Pacific we would, to be sure, completely reverse lines of policy we have been following in the Philippines. We would restore a new firm grip on the Islands. Decently we could discover reasons to rivet this grip permanently in the changed tone of leading Filipino statesmen who through the past two decades built up their own personal prestige with persistent loud cries for an independence, which it begins to seem they do not want after all, now that virtually it has been placed in their hands. Congress recently rejected that portion of the naval appropriation measure which provided a beggarly five millions to fortify the Island of Guam. In a new measure the amount of the grant originally sought can be multiplied by twenty to make a beginning of the work needed on Guam. Steps also must be taken to provide for fortifications and bases in the Aleutian chain of islands and funds will have to be found to enlarge all defenses in the Philippines where a minimum requirement will be a base attaining or surpassing parity with the Singapore Naval Base on which the British Government thus far has expended about £40,000,000.

The whole world situation in some aspects seems to have been made to order for us. The most cogent reasons why the United States should begin in Asia in embarking on world emprise are obvious. Population furnishes only part of the answer. In the drive toward new destiny the United States must squander man power in a manner never before known in the Nation's history. Every American youth who goes away in uniform with a gun in his hands would by this act alone, as the Japanese do, take final leave of home and kinfolk; his name then reverently would be removed from the family roll and enshrined in the lists of heroes. He would not be seen again; he would never return. Therefore, the Nation must husband by every means this, its most precious asset, for should it fail in this, when it arrived at length at its goal, a people impoverished in numbers could not be expected to hold a conquered world. The means to slow down as quickly as possible the attrition of human strength should be found in the teeming, illiterate, half-starved millions and endless millions in Asia. At the rate affairs in Europe are moving to-day it is reasonably likely that the completion of our drive through Asia will synchronize

nicely with the ultimate outcome of events across the Atlantic where, without the cost to us of a man or a dollar, the various clashing European forces may be expected to have achieved a complete mutual destruction.

Such an adventure means the outlay of an unthinkable amount of money and material losses beyond calculation. We will be obliged at a stroke to destroy our trade in the Pacific. The Nation would have to anticipate an outpouring of treasure on a scale that would make the billions of the most fantastic New Deal program look like small change. If it is asked where this money will come from, our leaders can employ a useful formula and point to that posterity so greatly to be benefitted. In emergencies we might resort to a method the Chinese have perfected, and collect taxes fifty years and more in advance. At any time in the march of these events we could prove ourselves solvent in the Japanese manner by balancing totals of expenditure, however, huge, against existing and prospective values of ever-expanding possessions.

Once started over such a course of destiny we could never turn back and survive, we would be unable even to pause in the headlong momentum of our progress. Events of our own creation would usurp control and relentlessly drive us on to lengths beyond all imagining to-day, when a race apart from the rest of the world finally might be evolved. After a century of prodigious scientific advance, about A.D. 2040, in a well-ordered world another, more fortunate, Alexander, 100 per cent American, might squint through a telescope at starry skies, plot lanes through the ether, and plan confidently methods to win to alluring new objectives. Thus a modernized, stream-lined democracy, such as is now evolving at Washington, may be projected ultimately into the distant reaches of space, on into infinity—maybe to the very fringes of Heaven itself.

### The Greatness of America

Deep-rooted traditional beliefs, that are inbred in the spirit of the American people and are based on the inspired foresight of great leaders of the past, stand as a forbidding red light in the path leading to foreign entanglements. These are old-fashioned concepts, unworkable in the modern world, say new prophets that have arisen in the land. They are deaf to the urging of those who cling to the old ways and who believe that if the ancient standards are put aside the Nation must lose some part of its identity and undergo a basic change of character. We possess a fair, well-favored section of the planet, richly stored with diverse resources, protected from external menace by great natural barriers, with amiable neighbors less well endowed than ourselves, and with ample space for elbow room and comfort. Kind Providence has made us, therefore, as opposed to the luckless "have nots" one of the "have" nations of the world, that is to say, one of the "peace loving nations," but with one tremendous difference from other favored peoples. Britain and France and other dominant powers are so placed and conditioned that they must follow particular courses. The unique advantage that we possess is our unhampered freedom of choice in what we may wish to do. We are secure from all the storms that blow, safe-housed and affluent enough to command every commodity of the earth that our people may need. Many clear-thinking Americans of this day believe that all these things, and the priceless option to do as we please, are ours to have and to hold just so long as with unwavering fixity of purpose, we attend strictly to our own business.

The obligation of the American Government to its citizens abroad may not be denied, but the only group of Americans outside of the Homeland that can give the Government present concern are those in China. It seems absurd to imagine that the best interests of these people, or the interests of the Nation, dictate that they should be thrust into rôles in some vast tragic drama on the world stage. Other simpler means more surely calculated to ensure their well-being and prosperity should be found. It is to be remembered that only the individual enterprises of these Americans—their livelihoods—in war-torn China, are in jeopardy. Affairs in China progressively are growing more uncertain. No aspect of this situation can be seen in American eyes as inviting, nor can any sympathetic interpretation be hopeful. A recognized Chinese Government, it is true, retains an identity, but its sphere of action is so circumscribed that it is all but helpless, for it is almost out of reach of those external aids on which it must depend for continued existence. If the internal collapse of Japan that China dreams of should take place, it is unlikely that China's position would be



bettered. Such an event would not mean that the well-equipped Japanese armies now on Chinese soil would get out of the country and go home. If external influences are excluded, the Japanese in China now are almost in a position to hold all their gains, live on the country and repel all attacks of guerilla warfare indefinitely.

The American at Home may get an idea of the extent of China's plight if he can imagine an invasion of the United States like that in China. After the loss to the enemy of the Capital, the ports and great cities of the country, the waterways, the railways and lines of transport, the Government retreating ever farther and farther into fastnesses of the land, might come at length to a remote place of safety, somewhere up above the Whitehorse Rapids in the upper reaches of the Yukon River in Alaska. Here, in a spot accessible only to airplanes or over uncertain wilderness dirt roads, the Government pluckily might strive to function and carry on while scattered bands of ill-equipped troops back in the States, with all the aid a conquered embittered population could give, continuously would harrass the invader, but could not hope unaided to vanquish or expel him from the country. Through the whole period of such a grim course of events aliens might continue to reside and strive to carry on their affairs in the country just as Americans and other aliens have been doing in China.

### Establishing A Precedent

Shortly after the war, planes, and the big guns went into action at Shanghai in the middle of August in 1937, elaborate plans perfected years ago in times of other emergencies were brought into play by the American authorities at Shanghai to remove to places of safety all Americans in China. Soon afterwards, as the conflict spread, an appropriation of \$50,000 was made available from Washington to the American Consular authorities to send Home Americans in China. At that time every American's credit was good for a steamship ticket and transportation to his home place in the States. It was held that no authority existed to compel individuals to accept this aid from the Government. American officials in China did all in their power, through committees and organizations brought into being in the emergency, to induce Americans to leave, and all facilities to enable them to depart freely were provided. Many did leave, but many others remained behind in China.

Most of those Americans who left China at that time either had only slight bonds to hold them to the country or possessed resources that enabled them to shift into new environments confidently. The reason so many stayed behind in China simply was because they had nothing to go to in the United States—no jobs there, and no funds with which to begin a new existence. Rather than abandon connections and enterprises, which in many cases they had been building toilsomely through the years, to face bleak uncertainties of "starting all over again" at Home, they chose to stay on in China. In the weeks that followed they learned the technique, useful in these modern times, of walking abroad in safety when the air is full of scrap iron. Thus, if precedent be needed, the precedent of giving substantial assistance to American citizens in times of emergency is well established. The emergency of the present day is less apparent, but perhaps, actually it is no less sinister than it was before. None can say what will happen in China.

Our vacillating policy in the Far East began from the beginning. After the war with Spain when we got the Philippines we failed to "follow through" with our swing toward colonial expansion. We began to falter. We did acquire the Island of Guam, but we neglected to take over the thousand-odd other islands of the Marianas surrounding it, which we might have done with full world approval. Germany, whose warcraft had been prowling over the lanes of the Pacific through this period, seized the opportunity, and bought at a bargain price all of these islands from a humbled Spain. Then Germany lost the islands in the World War to Japan, so Japan holds the whole group except the largest, the Island of Guam, which remains a possession of the United States, and which lately has been developing into an international pain in the neck.

Through recent years the indicator of our course in the Far East has been pointing toward the Exit. We have chosen to quit the Philippines. Without the Philippines the importance to us of the Island of Guam shrinks into insignificance. Even if an American mantle of protection should remain over the Philippines, the question of the strategic importance of Guam in the eyes of

the naval experts generally is extremely uncertain, although none deny that costs of adequate fortifications on Guam would be stupendous, and even if fortified, the doubt would remain whether this 200-square miles of sand in the Pacific could be defended or would be worth defending. To the north, to the south, to east and to west, the Island of Guam is surrounded by other islands all under the Rising Sun Flag, and a number of these are almost within gunshot distance of Guam. The Island of Saipan, which is under the Japanese Flag, is but 90 miles away and possesses one of the best natural bases in these islands. Nearby are other strategically important Japanese Islands—Yap, Palau, the Bonins and many others.

### The Importance of Guam

Guam is a dot in the blue Pacific more than six thousand miles from the United States and 3,750 miles from Pearl Harbor in Hawaii. It has no commercial importance except as a cable and radio relay station and as a base for the American trans-Pacific air services. It is the last hop-off station for the west-bound Clipper planes on the way to Manila, 1,500 miles distant. Presently Japanese trans-Pacific airplanes will be using an air port near Guam for a projected Tokyo-Manila and Tokyo-San Francisco airline that is to go into service in coming months. Many factors make an American defense of Guam difficult and inadvisable. This island lies like an explosive on Japan's door-step, for it is only 1,200 miles from the coasts of Japan—fairly easy bombing range. This is the reason why the Island of Guam is a red hot cinder in the Japanese eye.

So, out of the mass of complexities in the Far East the observer may see emerging three prongs of three specific phases of the situation, seemingly unrelated, but which may be woven into a pattern wherein may be discovered a reasonably adequate solution of the whole American problem in this part of the world. The late Senator Huey Long shortly before his untimely end had an intriguing notion about "sharing the wealth." Then there was that eminent venerable sanitary official in California who figured it out that the Government could give all the old folks of sixty \$200 a month. A little later the "thirty dollars every Thursday night" idea and other similar proposals were put forward. All these plans carried a tremendous popular appeal, even when critics called them crack-pot schemes. The economists studied the proposals briefly and declared them to be scientifically defective, because under any of these systems inevitably the Government would go broke. The American taxpayers would be unable to stand the drain, for all the unearned payments would have to come out of the pockets of the taxpayers.

An idea as bizarre as any of these, perhaps, but lacking their fatal defect, might readily be applied by the Government to its problem of those Americans in China. The Government has both the desire and the obligation to insure the safety and adjust the affairs of American citizens in China. The Government has an insignificant possession of such nature that, although it has only a dubious value, it carries a germ that may or may not become malignant in the national system. This possession that is useless to us, however, is coveted by a neighbor. It's as simple as that. The United States could sell Guam to Japan and use the proceeds of the sale to liquidate the American position in China.

The Government would have to acquire the bulk, if not all of the American commercial enterprises in China. Then to every *bona fide* American citizen able to give proof of residence in China through a specified period of years the Government could make a compelling, but not compulsory, cash allotment amply sufficient to enable the migrant to move on, homeward or elsewhere. Removal from China would be a part of the bargain. The cash allotment would have to be substantial. The whole outlay should not run into any shocking total, however. It could be kept within limits at which any seasoned New Dealer might be inclined to sniff gently. It would be less than the sum a week of active warfare in the Pacific would cost the United States. Within margins of reason and safety it might run perhaps to as much as \$50,000 per individual, plus transportation costs. From the point of view of the American taxpayer no need arises to be parsimonious in making these allotments.

In thinking about the American population in China public opinion in the United States seems to be swayed by the territorial immensity of China, and by the hundreds of millions of Chinese, so unconsciously and involuntarily, Americans at Home seem prone to scale upward erroneously numerical estimates that they



make. In the Home State of Secretary of State Hull is the little city of Dyersburg, which may not have attained its fair meed of fame in American popular esteem, but which, nevertheless, is reputed to be a charming place of residence. This little Tennessee community of about nine thousand souls has about a thousand more residents than there are Americans in all China, even counting the American armed forces. If American naval expenditures running into billions, in addition to many more millions for other Federal services, had been expended in recent times on behalf of the good people of Dyersburg, Tennessee, this outlay might look like an inconsistency in the national economy. Probably the whole value of the various enterprises of these Dyersburg, Tennessee, residents runs close to, or exceeds, the hundred and fifty millions of the whole American commercial stake in China, and, of course, the people of Dyersburg have no need to be protected by gunboats or American Marines. The whole population of the Tennessee city, or all the Americans in China, could find ample berthing space on two or three fair-sized passenger liners, so a removal from China of all the Americans living there could not by any flight of imagination be seen as anything resembling a mass migration.

### Big Trading Possibilities

The American Government could acquire nearly all of the American commercial enterprises in China practically without any ultimate cost, perhaps with a profit, because the major portion of the American commercial stake is in such things as banking and other financial enterprises, improved and unimproved realty, public utilities and oil installations. The financial interests are adequately safeguarded, and the utilities are more or less monopolistic in nature. The intrinsic values of these properties would not be affected and would not be lost, however many times they might be bought and sold. Herein are possibilities for profitable trading, for these enterprises will not go out of business. Shanghai, the focal point, would lose but an infinitesimal portion of its population.

American missionaries and mission property fall into a special category, but they can, nevertheless, come within the scope of procedure followed in dealing with other American residents and with American business interests. Like the others, the missionaries will have the option of accepting or rejecting proposals the Government may make. Groups of American missionaries in the past on a number of occasions have asked the Government to withdraw from China all forms of armed protection, and have sought to throw off all extraterritorial rights they have as American citizens. Theirs is a high spiritual mission to which they have devoted their lives and what they have achieved will live on. No valid reason appears why American missionary effort in China should slacken, even if every ordinary American citizen did leave the country. The position of the missionary in China, in fact, might be bettered by such a change. Authoritative estimates of the value of American mission properties in China formerly placed the total between forty and fifty millions. The present value, after two years of warfare in China, is problematical. These mission properties are a gift to the Chinese from Christian America, and whatever changes may take place, and whatever the hazards may be, it is to be expected that they will continue to be maintained. Here, ready made, is a task for those enlightened Chinese Christian converts, who thus nobly may justify all the outlay of American millions through the century and a quarter of American missionary effort in China.

The whole thing probably could be worked out on a precise mathematical basis so that the funds acquired for the specific purpose would be equal to, or might exceed, the total necessary outlay. After the Spanish-American war Germany paid Spain \$3,300,000 for some odds and ends and for all the lesser islands surrounding Guam, but Pacific island realty values have increased, tremendously in the forty years that have elapsed since that transaction took place. In selling Guam to Japan we can fix the sale price to suit the needs of the purpose to be achieved. Japan will not quibble, for Japan wants to get the cinder out of her eye, and it would be worth much to her also to get the American element in China out of her hair. In doing this the Washington Government will be giving in most unmistakable manner new emphasis to the American opposition to war and to everything that may lead to war.

In any such sale of Guam to Japan the United States, to be sure, will retain all existing American values on the island—except the guns, which have not yet been put in place. The air base for the American trans-Pacific planes and the cable and radio relay

stations will remain under American control as hitherto under some perpetual lease arrangement. About twenty years ago the United States had a row with Japan over the little Island of Yap and its cable station. This was adjusted amicably when possession of Yap was given to Japan while the United States retained all rights on the island, including rights of residence, which no American, however, has yet seen fit to exercise.

### With Nothing to Lose

If the factor of warlike intent actually is absent from the American consciousness, then in selling Guam to Japan the United States will lose nothing of value it now possesses on the island. Aside from direct advantages of such a sale, that seem to be more or less obvious, are incalculable indirect advantages to the American taxpayer. Withdrawal from Guam would furnish concrete evidence that the United States intends to hold aloof from Asiatic entanglements, and as a consequence the need of huge expenditure for naval armament in the Pacific would be relaxed measurably, if it would not be removed wholly. Through recent years the American Navy has been geared especially to the situation in the Far East, and it may be logical, therefore, to charge a sizable proportion of the billions expended in recent times for armament in the Pacific and in Eastern Asia against the resident American element in China.

Focal points of opposition to any step the United States may take to avoid war in the Pacific lie in Moscow, Paris and London, and also, to be sure, in China, but the pressure of this opposition will be exerted within the States. Every reason but the real reasons the various individual alien interests have for opposing the purpose will be pressed vigorously in broadsides aimed at points of least resistance in the American armor against external influences. Patriotism in various guises, loyalty to old allies, the duty of the United States, and the necessity, to save Democracy, self defense against imaginary menace in the future, and all the familiar idealistic concepts of international relationships, will be harped upon to convince the people of the United States that it is in their own interests, and is a sacred obligation of their Government, to safeguard the possessions of other Nations overseas.

International obligations involving the United States assuredly do exist, but in these the United States is not a debtor. The United States owes nothing, morally or actually, to overseas neighbors. Action by the Washington Government that must greatly increase existing obligations to us of friendly neighbors would seem to lack sound economic basis. The argument that we must help other Powers now as a measure of self-defense against future eventualities seems to lack the quality of being convincing when it is remembered that the inspiration behind this idea is an imported product.

The communist influence infiltrated into the United States has become articulate in American pacifist bodies and in labor organizations. Suave European and Chinese statesmen and diplomats talk of the sanctity of democratic institutions and give ardent support to the plea of stricken China, urging compelling reasons for the United States to take action in the Far East that inevitably must lead to war. We are emotional and sympathetic, so many Americans say that America hates Japan. Can it be that instead of hating Japan this sentiment we now feel toward Dai Nippon has something of the quality of the rage of a frustrated parent who cannot understand and will not admit that a favorite protege has grown out of adolescence and has attained adult stature?

Withdrawal from East Asia assuredly would loose a barrage of scornful criticism against the American Nation, for it would be charged that basely we are deserting our sister democracies, and are abandoning China to a dire fate in her hour of need. It is true that we have powerful traditional ties of long standing with France, and we share the awe and admiration of the world for the historic miracle that is the British Empire. We should remember, however, that these powers become great long before the United States attained importance in the family of nations. They have managed their affairs through the centuries with conspicuous success and much profit, and they have come to control about a half of the earth's surface.

China, too, has been flourishing in her own peculiar way without external aid for some seven thousand-odd years, having survived more warfare and alien invasions than any other people on the globe. The belief that has been carefully nurtured in the United States since the turn of the century that we have special obligations in China has only an imaginary basis.



### Birth of An Imaginary Nation

A little less than thirty years ago Dr. Sun Yat-sen hypnotized the Occident with a phrase which in his breast never became more than a hope, but which in the United States has grown into a fixed belief. When the great Chinese patriot saw his dreams come true and the Manchu power crashed in 1911 Doctor Sun told the world that the Republic of China had been born. Thus came into being in the American consciousness our "sister Republic across the Pacific." This has been a most useful illusion to generations of Chinese overlords and satraps, and the Chinese leaders and spokesmen of to-day employ it diligently. We listen approvingly. Since the fall of the Manchus the power of the succeeding governments in China has been based wholly on guns and armies continuously engaged in internal conflict through the entire period until the Japanese onslaught served as a mould within which a form of temporary unity necessarily resulted. The form thus created artificially is like dry sand and can be expected to fall apart whenever the mould is removed.

Through the period since the overthrow of the Manchus this distressed land going under the name of The Republic of China has never had an election, an electorate, a workable constitution or any form of parliamentary assembly representing the people. For a space a form of parliamentary assembly lived briefly to perish of its own internal corruption. Four or five tentative constitutions have been drafted, all abortive. An election is a phenomenon existing in China only in those narrow areas where the foreigner rules, and a ballot is an instrument utterly beyond the knowledge or experience of even enlightened middle-class Chinese, such as shop-keepers and ordinary tradesmen. If it is conceded that in time of war all governments of necessity become more or less authoritarian, then it is as fallacious to call China a Republic as it would be to call Japan totalitarian or regard Russia as a Democracy.

A common criticism of observers who come to China from other lands is aimed at the utter absence of any display of patriotic feeling in the day-to-day behavior of the Chinese people who go about their affairs placidly, often smilingly, without any sign of concern over the warfare in progress in the country. Thus the night spots, the cabarets, and other gay places of the large communities are filled with merry throngs of young Chinese nightly. Some American writers expressing disgust about such a state of affairs in wartime have sternly reproved the young Chinese. This is a wrong-headed view. The Chinese youth and the Chinese people in general have nothing morose in their nature; ordinarily they are happy-hearted, placid, thrifty and industrious with a vivid sense of humor. They behave, therefore, as they feel. There is a war in progress in the land. What of it? There has always been a war in the land. Down through the centuries the Chinese armies have been fighting continually, between themselves usually, but also as at the present time against an alien invader. To the Chinese warfare and slaughter is no novelty; of all familiar things in their lives this is most commonplace. Through recent years China has had more men under arms than any other power in the world and it is not long ago when as many as eight separate civil wars were in progress at the same time in different sections of the country. It has always been so and the Chinese of to-day accept such visitations resignedly with philosophic calm as did their forbears, in the same way that they accept the ever-recurring scourges of famine, floods and pestilence.

### Children of the Universe

The sentiment of patriotism as understood in other lands has no place in the Chinese mentality. The feeling within them that is at all similar to this sentiment of other peoples is a vastly grander concept than any ever created in any land of the Occident. For them this sentiment has no territorial boundaries, for they believe simply that they are chosen mortals possessing the merit to live at the center, not merely of the world, but of the whole Universe over which their rulers have undisputed sway. It was a simple matter of course to all Chinese in the middle of the preceding century when the Emperor received the first envoys that Great Britain sent into China as "tribute bearers from our vassal states overseas." Patriotism as the West understands it, or within territorial limits can have no place in such a mental attitude. Even the most eminent scholars cannot give any accurate estimate of the total number of characters in the Chinese written language.

It runs into the tens of thousands, but in all these characters and their combinations not one can be found that expresses the western world's conception of patriotism. In very recent times a character has come into unaccustomed use in the language which is meant to express the Occidental idea of patriotism. This has been borrowed from the Japanese. The use of the new symbol, of course, is confined to that infinitesimally small percentage of the population that makes up the literati, the returned students and the well-schooled diplomats. The more than ninety per cent of the population that is illiterate has no knowledge of this new character or, in fact, of any other written character.

The belief is fostered in western lands and particularly in the United States that the fighting of the past two years in China is like the ferocious onslaught of a lion on the helpless lamb. The hard-bitten old China hand, as these gentry come to be called when they have lived so long in the Far East that the dogs no longer bark at them, would never phrase it this way. Out of his store of experience the veteran China coaster would be more likely to call it king cobra versus python—with a pious hope of being able to stand clear, a feat that daily grows more difficult.

The main force of opposition to any move the United States may make to withdraw from dangers in Asia will be concentrated on the charge that such action inevitably must mean complete extinction of American trade in the Pacific. This would be in complete contradiction of the record of the past, for if it is to be assumed that Japan would become the dominant power in East Asia, then it is just possible that American Far Eastern trade would be best served by an American withdrawal at this time from possibility of conflict in this part of the world. No special advantages for the American trade position in the Pacific could be expected from the unlikely contingencies of British or French control of East Asia, or from a combined control of these allied powers. If the Russian communist aims in China come to be realized, no soothsayer is needed to tell what then would happen to American trade. American manufacturers still are awaiting that flood of orders from Russia which was to follow on the heels of American recognition. When China surrendered Manchuria to Russia forty years ago the first action of the Muscovite was to lock all the doors and completely bar out foreigners and foreign trade.

The myth of the "great China market" of four hundred and fifty millions persists. More than sixty per cent of these four hundred and fifty millions have been living from one generation to another just about one meal ahead of starvation, and all of the four hundred and fifty millions live on an annual per capita expenditure of \$10 a year. The only way China can buy from the United States or, in fact, from anybody, is to borrow the money. In this respect China ever has been responsive. China is ready to borrow all we may be willing to lend. She will order and accept the goods for which the money is loaned. When it comes to paying, that is another matter, as not a few saddened American interests can tell. The enquiring student can uncover a long list of disillusioned Americans who in the past pranced blithely through the Open Door into China only to discover too late that they had no possible exit for their commitments in the country.

### Specters of the Business World

Made-in-China business specters that still haunt American memories in the Far East and in the States go by such names as the Siems-Carey Company that had contracts to build thousands of miles of railways and do other work in China, but accomplished nothing when Chinese interests blandly absorbed initial advances of about two and a half millions; also there was the Federal Wireless Company which got a radio concession and a double-cross in one package, which is being shared by the Radio Corporation of America, which acquired the original concession. The Continental and Commercial Bank of Chicago also is remembered sorrowfully. An officer of this bank when a question about Chinese payments was raised proclaimed that Chinese bonds were so sound that they needed no security; he was awakened rudely later. The Pacific Development Company handed over to Chinese without security a first instalment of \$5,000,000 on a \$30,000,000 loan, and the American-International Corporation left two and a half millions in American cash in a hole in the ground in Yunnan, a silver mine that paid out nobly to the Yunnan bandits and to Yunnan provincial officials, as long as the Americans remained on the scene. Willard Straight, a former American Consul-General at Mukden, headed



an American group that financed an ambitious project to establish a 20,000-acre model farm on the Sungari in Manchuria. They sank about \$300,000 into buildings, livestock and American agricultural machinery. Then the bandits murdered the American manager of the farm and swept the place clean of everything of value, shattering another American dream in China.

It is to be noted in this general connection that American financial interests for some time have been holding aloof from Chinese securities, for the reason that Chinese bonds rarely pay dividends or are paid at all. China defaulted loans in the United States totalling \$7,000,000 in 1937 which was in addition to previous Chinese issues so long in default as to both principal and interest that the United States Department of Commerce completely ignored them in its 1937 compilations of bonds defaulted throughout the world.

We can move into China on our own and impose a trade control of our own making; otherwise every factor of the situation points to the conclusion that in Far Eastern trade we shall have to depend upon Japan. No specters haunt the course American business has followed with Nippon. It may be fair to review the record through past years. Even Japan's bitterest enemies will not contend that Japan has not been a fairly good customer of the United States. In the matter of trade, Japan's relationship to the United States is approximately that of Canada to the United Kingdom. In 1936 Japan bought in the United States more than we sold in that year to all China and all of the South American countries combined. In this way Japan became our third best customer ranking after Canada and the United Kingdom.

Japan's first essay in colonizing took place in 1896 when after the war with China the Island of Formosa was ceded to her by China. At that time the inhabitants of the island had long been barbarous and all the inland mountainous districts were made inaccessible by ferocious aborigines. Owing to the prevalence of malaria and other tropical diseases the island was not habitable for civilized people. A trickle of American trade only developed in Formosa after Japan had been in possession for ten years having in that time established a semblance of peace and order and had made a beginning of the work of stamping out disease. In the succeeding forty years the ports, the railways and other means of communication were developed, to a large degree with American materials. As Formosa has but recently emerged from savagery the amount of direct American trade with the island is not impressive, because, naturally, the bulk of the needs of the population are supplied from Japan. The traveller will find, however, that much of the equipment and materials on the railways, the machinery in the sugar mills, industrial establishments and in the modern electric plants are of American origin.

After Formosa Japan moved into Korea. In 1903 the United States sold to Korea goods to the value of \$199,188. In the following year when Japan had attained a commanding position in the peninsula, American exports to Korea rose in value to \$906,557. Three years after the annexation of Korea, in 1913, American exports to Korea were valued at \$3,920,000. In 1936 the United States sold to Korea goods worth Y9,154,000 in addition to exports from the Philippines into Korea to the value of Y620,000. Between 1910 and 1936 production in Korea was increased 800 per cent.

### The Trade in Shantung

In the World War the Japanese evicted the Germans from the Chinese province of Shantung and Japan came into a commanding position in that province in 1916. American sales to Shantung province before that time had been negligible, but Japan promptly reversed German policies on the Shantung Railway and in the five years from 1916 to 1920 bought from American manufacturers goods of a value of \$3,047,000 which was about a third of her purchases abroad in this period. In the following year, 1921, in reconditioning the Shantung Railway, she bought from the United States an immense quantity of rolling stock and equipment, including eighteen locomotives, two hundred and ninety-three 30-ton coal cars, eleven passenger cars and other items. When Japan was obliged to get out of Shantung, due largely to prodding of the Washington Government, American trade in that region swiftly evaporated.

Japan went into Manchuria in 1906 after emerging victor in the Russo-Japanese war. Before the advent of the Japanese, American exports into that part of the world were confined to a

small quantity of cotton piece goods. The railways had been built and equipped entirely with Russian materials. Between 1907 and 1919 the South Manchuria Railway bought American materials to the value of \$93,790,000 and in addition, in this same period other Japanese concerns in Manchuria imported American machinery and materials to the value of \$60,000,000, making a total for the twelve years of \$153,790,000. In the single year of 1920 the South Manchuria Railway paid out \$20,000,000 for American made materials and in the twenty-two year period ending March 31, 1929, this one concern bought from abroad \$251,000,000 worth of materials. Of this total the United States supplied 26 per cent. Almost all the rolling stock of the railway at that time was of American origin with 482 locomotives, 6,574 freight cars and 440 Pullman sleepers rolling over no less than 90,000 tons of American steel rails while practically all steam shovels, cranes and dredges used also were of American origin.

As an illustration of how zealously Japan has sought to keep on good terms with the United States—an effort maintained to this day—a sidelight on those earlier years of railway expansion in Manchuria is supplied by the circumstance that a large part of the huge sums required for this railway work was borrowed by the Japanese from British interests, but the Americans got the orders. There were no strings on this loan. It was just a matter of business. The Americans were a bit quicker on the trigger, being in a position to guarantee much prompter deliveries than English manufacturers could do. It is noteworthy, too, that the South Manchuria Railway paid on the nail for its railway purchases, building through this period a greater mileage than was built in all China with equipment, much of which China has not yet paid for.

In 1932 Japan created the new State of Manchoukuo and promptly this spelled misfortune for American and other alien manufacturers' representatives and alien commercial agencies and interests in general in Manchuria. Nevertheless, in that year the United States made direct sales to Manchoukuo to the value of Y20,068,000. The annual total of such sales mounted in the succeeding years and quadrupled in 1938 when Manchoukuo bought American products of a value of Y83,068,865, in addition to materials of American origin bought indirectly from Japan.

The record discloses that in normal times the United States sells annually in China goods of an approximate value of \$100,000,000. Among the powers with investments in China Japan in recent times has climbed into first place so long held by Great Britain. The Japanese commercial stake in China now is nearly a billion American dollars invested in railways, mines, cotton mills and industrial enterprises. These enterprises, it may be conservatively estimated annually consume an average of ten per cent of their valuation in repairs, extensions, spare parts, supplies and oil. In this way Japan has created an engineering market of her own in China valued at about \$50,000,000 a year exclusive of raw materials used in manufacturing. The Japanese naturally place the orders for these requirements through their own firms and as far as possible the purchases are made in Japan. But Japan's resources are limited and there are many items Japan cannot supply, so to large extent these orders are placed in the United States.

### Trade that Is Nailed Down

Roughly a half of the American trade in China is in oil, tobacco and cotton and being quasi-monopolistic this trade does not have to depend on any Open Door principle, for at present it cannot be touched by any competitor. Probably Americans will continue to hold the trade in these major items indefinitely, but there can be no guarantees for the future. In recent times the Soviets have been dumping oil in Far Eastern markets and it is possible that China at some future time may be able to grow all her own tobacco and cotton. A small extra duty on imported leaf tobacco and a prohibitive tariff on cigarets could overnight deprive the United States of a trade roughly worth \$20,000,000 to Virginia and Carolina tobacco growers. An oil deal with Moscow might easily measure into a wallop to the \$30,000,000 American oil business. All efforts experts have made to grow in China the longer staple variety of cotton, such as is supplied from America, have thus far failed. They may succeed and ultimately this American trade may go overboard. No recourse to any phase of the Open Door policy could avert such calamities. The American trade position in China, therefore, figures out approximately that of the hundred

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# Developments in Manchoukuo

By MORIO D. ÔTAKI



MANCHOUKUO is now eight years old. As an indispensable link in the anti-Comintern chain, the country has undergone sound growth in most branches of its industrial activities. The present status of Manchoukuoan industry is briefly outlined in the following paragraphs.

The foreign trade of Manchoukuo during the first quarter of 1939—January to March, inclusive—reached an aggregate of Y557,786,000, representing an increase of Y124,470,007 over the country's foreign trade in the corresponding quarter of 1938. The total first quarter trade value was divided into Y235,196,000 for exports and Y322,590,000 for imports, with a resulting import excess of Y87,394,000, exceeding about four times the import excess of Y20,019,000 in the first quarter of 1938.

Both exports and imports during the first three months of the year gained over a year ago by Y28,550,000 in the former and Y95,920,000 in the latter.

In view of the fact that Manchoukuo's total foreign trade in the first quarter of the current year reached nearly Y558,000,000, it is expected that the whole year's trade of the country in 1939 will top the sizeable sum of Y1,900,000,000, thereby shattering all preceding records.

Manchoukuo's five-year industrial plan having entered upon its third year, it is interesting to note that imports of raw materials for construction have been on the upgrade. By the strengthening of the Japan-Manchoukuo economic bloc system, exports of industrial raw materials from Manchoukuo to Japan are expected to increase further in the future. It is also likely that Japan will become the most important importer of Manchoukuoan products.

In the overseas commerce of Manchoukuo, Japan leads all other foreign countries. In the country's first quarter trade this year, Japan accounted for Y386,392,000, or about 69 per cent. of total transactions. China ranked second with Y25,872,000 in exports and Y36,055,000 in imports.

Manchoukuo's foreign trade for the first quarter of 1939, compared with the trade in the corresponding quarter of 1938 is given below:

## MANCHOUKUO'S FOREIGN TRADE DURING THE FIRST QUARTER OF 1939 (IN Y1,000)

| Item                | 1st Quarter<br>of 1939 | 1st Quarter<br>of 1938 |
|---------------------|------------------------|------------------------|
| Exports .. ..       | 234,196                | 206,645                |
| Imports .. ..       | 322,590                | 226,664                |
| Total Trade .. ..   | 557,786                | 433,309                |
| Import Excess .. .. | 87,395                 | 20,019                 |

As the third quarter of the year, July to September, is usually marked with the active deliveries of domestic products in Manchoukuo, the trade balance is expected to turn to an export excess during the latter part of the year:

## MANCHOUKUO'S TRADE WITH JAPAN (IN Y1,000)

| Item                | 1st Quarter<br>of 1939 | 1st Quarter<br>of 1938 |
|---------------------|------------------------|------------------------|
| Exports .. ..       | 144,371                | 122,329                |
| Imports .. ..       | 242,021                | 165,225                |
| Total trade .. ..   | 386,392                | 386,554                |
| Import excess .. .. | 97,650                 | 43,896                 |

## MANCHOUKUO'S TRADE WITH CHINA (IN Y1,000)

| Item                | 1st Quarter<br>of 1939 | 1st Quarter<br>of 1938 |
|---------------------|------------------------|------------------------|
| Exports .. ..       | 36,055                 | 25,286                 |
| Imports .. ..       | 26,872                 | 5,370                  |
| Total trade .. ..   | 62,929                 | 30,656                 |
| Export excess .. .. | 9,183                  | 19,916                 |

## MANCHOUKUO'S TRADE WITH OTHER FOREIGN COUNTRIES (IN Y1,000)

| Country             | 1st Quarter of 1939 | 1st Quarter of 1938 |
|---------------------|---------------------|---------------------|
| Germany .. ..       | 27,892              | 20,178              |
| Italy .. ..         | 2,519               | 1,620               |
| Hongkong .. ..      | 1,326               | 1,500               |
| British India .. .. | 8,843               | 6,682               |
| Dutch India .. ..   | 251                 | 343                 |
| England .. ..       | 2,429               | 3,312               |
| France .. ..        | 801                 | 347                 |
| Holland .. ..       | 797                 | 4,611               |
| Denmark .. ..       | 143                 | 578                 |
| U.S.A. .. ..        | 26,282              | 37,056              |
| Total trade .. ..   | 108,467             | 116,099             |
| Exports .. ..       | 54,770              | 60,030              |
| Imports .. ..       | 53,693              | 56,069              |
| Export excess .. .. | 1,072               | 3,961               |

In the first quarter trade of this year, it is seen that soya beans, bean cakes, perilla oil and manufactured products gained over last year. The combined soya bean and soya-bean oil exports, however, fell by 4,000 metric tons in volume and Y1,600,000 in value from a year ago. This is attributed principally to a decline in shipments of the latter item to European markets.

## MANCHOUKUO'S EXPORTS OF SOYA BEANS AND SOYA-BEAN OIL TO EUROPE

| 1939, 1st Quarter : | In Metric Tons | In Y1,000 |
|---------------------|----------------|-----------|
| Soya beans .. ..    | 414,349        | 44,994    |
| Soya-bean oil .. .. | 5,669          | 1,420     |
| Total .. ..         | 420,018        | 46,414    |
| 1938, 1st Quarter : |                |           |
| Soya beans .. ..    | 402,194        | 42,446    |
| Soya-bean oil .. .. | 22,236         | 5,618     |
| Total .. ..         | 424,430        | 48,064    |

There were 4,232 corporations in Manchoukuo with a total capitalization of Y3,443,000,000 at the end of December, 1938, according to an announcement by the Manchoukuoan Government. Of these corporations, there were 1,105 joint-stock companies accounting for a combined authorized capital of Y3,308,000,000 and a combined paid-up capital of Y2,438,000,000. Limited partnerships numbered 1,968 with a total capitalization of Y76,000,000 and unlimited partnerships, 1,159 with a combined capitalization of Y59,000,000. Industrial capital investments in Manchoukuo at the end of 1938 were classified as follows:

## CAPITAL INVESTMENTS IN MANCHOUKUO (IN Y1,000)

| Kinds of Investment                | Authorized Capital | Paid-up Capital |
|------------------------------------|--------------------|-----------------|
| Banking .. ..                      | 602,235            | 477,959         |
| Insurance .. ..                    | 10,000             | 3,250           |
| Warehousing .. ..                  | 6,675              | 3,396           |
| Markets and Exchange Brokers .. .. | 24,920             | 9,814           |
| Commerce and Trading .. ..         | 132,098            | 73,819          |
| Transportation and Traffic .. ..   | 951,892            | 881,125         |
| Development and Real Estate .. ..  | 151,226            | 81,329          |
| Civil Engineering .. ..            | 22,275             | 13,010          |
| Agriculture .. ..                  | 13,450             | 6,532           |
| Forestry .. ..                     | 7,550              | 5,335           |
| Stock Farming .. ..                | 2,568              | 760             |
| Fishery .. ..                      | 8,200              | 2,950           |
| Iron Mining .. ..                  | 227,030            | 155,090         |
| Metals .. ..                       | 174,560            | 154,265         |
| Machinery and Tools .. ..          | 138,802            | 67,497          |
| Electricity and Gas .. ..          | 234,540            | 141,257         |



| <i>Kinds of Investment</i> | <i>Authorized Capital</i> | <i>Paid-up Capital</i> |
|----------------------------|---------------------------|------------------------|
| Chemical Industry .. ..    | 291,630                   | 138,570                |
| Ceramics .. ..             | 35,031                    | 24,463                 |
| Spinning and Weaving .. .. | 56,467                    | 34,246                 |
| Foodstuff Industry .. ..   | 59,637                    | 4,654                  |
| Miscellaneous .. ..        | 124,193                   | 104,241                |
| Others .. ..               | 22,185                    | 16,074                 |
| <b>Total .. ..</b>         | <b>3,308,174</b>          | <b>2,438,511</b>       |

Among undertakings given in the preceding list, commerce and trade led in number with 236, banking came second with 121 and chemical industry ranked third with 85. Development and real estate totalled 75 and foodstuff enterprises reached 61.

A Provisional Industrial Capital Control Law in Manchoukuo was put into operation on October 1, 1938. Under its provisions, some 232 corporations were licensed by the government during the six month period ending in March, 1939. These companies had a combined capitalization of Y993,959,000, divided as shown below, according to a government report dated June 2, 1939:

CAPITAL INVESTMENTS IN GOVERNMENT-LICENSED UNDERTAKINGS  
(IN Y1,000)

| <i>Industry</i>                | <i>Investment</i> |
|--------------------------------|-------------------|
| Mining Industry .. ..          | 415,285           |
| Manufacturing Industry .. ..   | 339,740           |
| Agriculture and Forestry .. .. | 165,220           |
| Transportation .. ..           | 13,380            |
| Commerce .. ..                 | 29,118            |
| Miscellaneous .. ..            | 31,216            |
| <b>Total .. ..</b>             | <b>993,959</b>    |

The capital control law was promulgated with the object of coping with various requirements necessitated in executing the five-year industrial plan of Manchoukuo. If certain enterprises were left to develop at will, the chances are that big capital would be invested in undertakings not urgently needed by the five-year plan. It was considered to be essential that industrial capital in Manchoukuo be invested in those enterprises necessary in carrying out the five-year plan smoothly and effectively so as not to disrupt the economic life of the nation.

The control law also aims at checking the irrational rise of commodity prices. Its provisions provide for the establishment of new companies, the capital expansion of existing corporations and the calling in of unpaid capital shares by government permission.

## Fantasy in G Minor

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millions in business done annually about fifty per cent is monopolistic, about twenty-five per cent passes through Japanese hands, leaving but about twenty-five per cent than can have any Open Door implications. It is for this twenty-five per cent, or, roughly \$25,000,000 in China trade that we keep a huge Pacific naval establishment geared to high tension and ready to fight.

It would appear, therefore, that an American withdrawal from East Asia would not be likely to have any impressive effect on American Pacific trade, most of which would be retained. The oil, tobacco and cotton trade would not be disturbed, at least for a considerable period, and no valid reason appears why Japan would at such a juncture depart from trading policies she has followed through four decades. She could not modify these policies, in fact, for neither she, nor does the Far East, possess the resources to provide the things that must be bought in China which the United States is most adequately equipped to supply.

If it is accepted that a time has come when the United States must shape a definite policy in the Far East, then it seems to follow that the specific action should be definitely positive or completely negative. We possess the power to enforce peace and in exercising this power we can mark out on the map beforehand precise boundaries on the globe within which this peace shall be imposed. This cannot be achieved by wishing or by oratory, and in this sort of thing there can be no place for young patriots who put lilt into their lives by swallowing live gold fish and assorted small animals. At considerable cost in lives and treasure we could completely smash Japan and thus save China and conserve

all the vast holdings of European powers in the Far East. Doubtless when the Europeans began to divide up our slender commercial stake in the Pacific a cause would be found to invent a new and better epithet than "Uncle Shylock" to apply to us to justify a new situation. Saving China in this way would at once enable the Chinese overlords to revert to their traditional national pastime of incessant civil warfare unless Moscow would find reason to interfere and put an end to that sort of thing.

## Smallest Trump Wins

If it should appear wiser to the leaders of the American Government to keep clear of conflict, we may, honorably and without damage to national dignity, withdraw behind our safe ramparts, retaining in our hands all power to shape new courses of action whenever we may see fit. Between the two alternatives lies no profitable or even safe middle courses. "Measures short of war" may swiftly and shockingly lead us directly into it, and even if such measures do not bring conflict, inevitably they must mean huge expenditure and losses which only can win advantages for powers to which we owe nothing. We are afflicted with a morality that is peculiarly our own. This at times takes the form of an exalted emotional state, blissfully unconcerned about realities, which in some aspects seems to be rather off center. It would be well for us to keep in mind the disillusionments of twenty years ago. By prudent exercise of that precious option to do as we please in this world we can lose nothing and may gain much. Without impairing our position we may win by playing the smallest trump in our hand. If we insist on playing the other fellow's game, that will be costly. Inevitably then we will live over again a former experience from which we shall have learned nothing, and we will discover again that there is no glory and less profit in war time friendships.

## Illustrious Men

It is a well-known fact that most illustrious men do not receive the praise and honor due to them until after their demise. Many historical anecdotes confirm these facts.

After art (we refer here more particularly to Rembrandt, Van Gogh and many others), it is above all science that has seen men of genius remaining obscure during their lifetime.

Jenner, Koch, Pasteur all had to fight with their contemporaries, both scientific and ordinary, before being able to convince the world of the importance of their discoveries. We can say that without the investigating power, without the intense work of these men, humanity would still suffer from many afflictions.

Another example: the Curie family. With what courage this pair of workers fought against the official world to make their merits known. But for Pierre Curie, alas! This came too late. Happy are those, who, being scientists, are able to reap the fruit of their labors whilst still living.

Sir Ronald Ross and Sir Patrick Manson are two scientists who can well be considered as benefactors to humanity. To them we owe the discovery of the transmission of the malaria parasite by the malaria mosquito; they also discovered the evolution of that malady which, in the tropics, constitutes a scourge that claims millions of victims every year. The malaria parasite has been discovered by Laveran, a French scientist.

When we know the evolution of a malady we know how to deal with it. As a matter of fact, the method for fighting malaria is completely known. It consists of wiping out the mosquitoes and larvæ that inoculate man with malaria, and in addition, the administration of quinine. It is agreed that quinine constitutes the therapeutic and prophylactic means for combatting this malady.

According to the Malaria Commission of the League of Nations, a dose of six grains of quinine per day, during the whole malaria season, is enough for protection from infection. For treatment, 15 grains to 20 grains of quinine per day during five to seven days is sufficient. On page 124 of its report, issued in 1938, this Malaria Commission stresses the fact that the harmlessness of quinine makes it a suitable drug for administration by subordinate personnel without constant medical supervision, whereas such supervision is essential in the case of synthetic products.

The Ross Institute, London, named in memory of the man to whom humanity owes so much, still deals with malaria problems, that are some of the most urgent in existence. Every year this Institute holds a Malaria Congress under the direction of the most competent malariologists.



# Chinese Activities in the Philippines

By RIZAL F. GATICA

THE disruption of business in China as a result of the Sino-Japanese conflict during the past two years has resulted in increasing Chinese capital investment in the Philippines. It is expected that a further increase is seen in the near future because of the recent visits of Chinese financiers who conducted surveys into the possibility of making further investments of capital laid idle by the war.

While the increasing flow of Chinese capital to the Philippines is viewed only in the light of its economic significance for the present, potential difficulties cannot be ignored in linking the importance of this capital with the future political status of the country. At present the Chinese control the retail trade and the channels of distribution of the rice industry of the Philippines. This is a problem which has become so serious at a time when the country is preparing for complete independence in 1946 that the Philippine government has been forced to devise various plans and schemes to save its citizens from this economic hold as a matter of national policy.

The visits of these Chinese financiers have now been connected with reports emanating from Chinese business circles that there are some banking and investment companies in China which contemplate opening branches in the Philippines. Already the Philippine Bank of Communications, capitalized at Pesos 2,000,000 by Chinese financiers and connected with the Bank of Communications in China, opened for operations in September of this year. This makes two Chinese banks now in operation in Manila. The other is the China Banking Corporation with assets of over Pesos 33,000,000 at the end of 1938.

The increase in investments of Chinese capital is shown in the fact that, for the first ten months of the current year, there were 16 corporations and 56 partnerships registered with the Philippine Securities and Exchange Commission with a combined capital aggregating Pesos 4,757,658, of which Pesos 4,085,218 was paid up. In corporate investments Chinese capital ranks after Filipino and American capital, but runs first in partnerships. Chinese investments in corporations amounted to Pesos 3,148,500, of which Pesos 2,476,060 was paid up, and in partnerships the amount was Pesos 1,609,158, all paid up. Chinese capital is mostly concentrated in merchandising, with scattered investments in lumber, rice, banking and insurance business.

Filipino investments in corporations totalled Pesos 19,446,714, of which Pesos 5,515,341 was paid up, and in partnerships Pesos 566,889, paid up. American investments in corporations were Pesos 4,726,500 with Pesos 391,310 paid up, and only Pesos 115,000 in partnerships. Japanese capital, against which there has been a lot of propaganda recently, represented only a small fraction of the total investments during the period. Japanese investments aggregated only Pesos 428,000, of which Pesos 176,100 was paid up, in corporations and partnerships.

The Chinese have long traded with the Filipinos. Their first contact dates back before the discovery of the Philippines in 1521 by Ferdinand Magellan. Since then they have come in great numbers, despite the immigration law against them, and are scat-

tered throughout the country. There is scarcely a town in the Philippines which does not have a Chinese retail store catering to the natives. In many important communities they have become private bankers, loaning money to the natives at usurious rates of interest, and exercise not a little influence upon public officials, too. Many Chinese have acquired lands for residential, commercial and industrial purposes, and to-day imposing office and residential buildings in Manila and other important centers in the country stand as a monument to their enterprise and industry—and to the potentiality of the Philippines as an investment field.

Chinese investments in merchandising amount to more than 500 million pesos, while about 80 per cent of the rice mills and warehouses and more than ten per cent of the lumber industry is in the control of Chinese hands. Foreseeing the danger of the control of foreign capital in the development of natural resources of the country, the Philippine Constitution, adopted in 1935, limits the exploitation and development of natural resources to American and Filipino citizens or to corporations, 60 per cent of the capital of which is owned by such citizens. As a result of nationalistic agitation, a movement which has also struck many countries throughout the world, many Filipino leaders have advocated the nationalization of retail trade and banning of all foreigners, with the exception of Americans, from engaging in this business. However, the movement has not as yet gained much headway in view of the fear that retaliation may be adopted by countries whose citizens would be affected in the Philippines.

However, the Philippine government has adopted several steps to encourage its own citizens to meet this situation by the inauguration of granting small loans to Filipinos through the Philippine National Bank, a government institution, and the establishment this year of the Agricultural and Industrial Bank, also capitalized by the government at Pesos 150,000,000, aims to ameliorate the economic conditions of the native farmers and to render financial aid to Filipino manufacturers and business men. For many years past now there has been organized agricultural and marketing associations throughout the country to aid farmers in the production and marketing of their crops. In an attempt to wrest the control of the retail trade from Chinese hands, a co-operative movement has recently been launched by an agency of the government. This new movement, which has already gained many adherents in many towns, aims to patronize native industries with the establishment of retail stores to cater to the members. In view of the backing of the government, leaders of the movement expect to finally compete with Chinese retailers, and perhaps with success.

Perhaps the realization of the final severance of political ties with the United States in 1946, Filipinos have now awakened to the fact that they have to start serious readjustments in their economic life in order to establish and maintain an independent existence without further help from America. While they see no difficulties at present in the heavy investments of Chinese and other foreign capital in Philippine business, and in the exploitation and development of natural resources, they have a premonition of possible dangers in such a situation in the future.

## SIAMESE SUCCESS

Siam's internal transport company continues to make good progress. Prince Vimvaditya Rabibadhana, presiding at the annual general meeting of the Aerial Transport Company of Siam, Ltd., which was held at Airways House, Bangkok, said he had ventured to forecast that 1938 would be a good year, and the company's present position fully justified his optimism. A dividend of four per cent was paid.

During the year under review a great deal of preparatory work had been done so that the new Petriew-Sattahib bus service and the Pitsanuloke—Raheng—Maesot air service could start early in the present year. The company's original aircraft, three D.H. Puss Moths, had been practically written off and not revalued, but were still in regular service.

A total of 104 north-bound and 104 south-bound trips was scheduled during the year, and all were completed. A total of 1,321 flights was made during the year, there were no forced landings or accidents and no damage of any description to the company's flying equipment.

The traffic summary for the year was: Mails 35,750 lb., compared with 34,000 lb.; goods 3,940 lb., against 4,000 lb.; passengers 97, against 64; mileage 95,500, compared with 83,000.

Under general agency agreements with foreign lines 624 arrivals and the same number of departures were looked after by the company, compared with 427 last year, and 961 foreign machines refuelled, an increase of 194.

The company looks after eleven civil aerodromes and two marine airports in the Kingdom of Siam.



# "The Profitable Path of Shanghai Realty"

Valuable Work on the Port of Shanghai is Produced

By Messrs. ARTHUR and THEODORE SOPHER

ALL will admit that any study that may lead toward mastery of that useful art of money-making is warranted, if, in fact, it is not dictated by present day conditions. If through any such study guidance may be found that gives promise of obtaining a precise formula for success, then it would seem that here is a field in which, indeed, the seeker for wisdom should delve deeply. Teaching in this most intricately difficult sphere of learning is no job for tyros. It calls for a familiar acquaintance with all the theoretical values linked with practical knowledge based upon actual experience.

This train of thought is inspired by the recent publication in Shanghai of a modest brown-backed volume, under the title, "The Profitable Path of Shanghai Realty." The authorship of this book carries to the reader the assurance that all the essential conditions for successful study of the subject here are fulfilled. The writers are Messrs. Arthur and Theodore Sopher, names well known in the Far Eastern financial and commercial firmament, for the writers have lived their whole lives in China and through decades have been most intimately concerned with the progress and development that has brought Shanghai to the place of being the world's fifth port.

The title of this new book may be taken as a literal landmark, for the volume does point the profitable path of Shanghai realty, and no others are better qualified in actual knowledge and experience than the writers to mark out this course. In many articles under the authorship of Messrs. Sopher that have been published in recent years in Shanghai, notably in the columns of *The Shanghai Times*, the writers have displayed an uncanny genius for accurate forecasting of financial and business trends. Basing their deductions upon past conditions familiar to them, in what they have been writing, they ventured boldly into the quicksands of future probabilities. Extraordinarily, their prophecies have seemed unfailingly to come true. Much of what they have written through these recent years has been revised and brought down to date in the new work.

Describing the manner in which the foreign settlements of Shanghai developed their trade and built their greatness, the book opens with a comprehensive review of Shanghai's economic growth which the writers trace through three decades, beginning with 1905, when the Russo-Japanese War ended. Effects of the original influx into Shanghai of Russian refugees are described and note is taken of the growth of population in Shanghai of the various nationalities. It is to be remarked that at the beginning of this period the International Settlement of Shanghai had a foreign population of 11,497, having reached this total in a period of twenty-

five years after 1880 when the Shanghai foreign community numbered about two thousand. In 1905 there were only 991 Americans in Shanghai, 3,713 Britons, and 2,157 Japanese. The Portuguese community then ranked third in the list of Shanghai dwellers with 1,329 people. It may be remembered too that that year of 1905 was the time when the Chinese lodged a vigorous boycott against the American trade, the volume of which then was far from being pretentious. Erratic price movements and shifting changes of realty and other values are traced by the authors through this period and through succeeding decades. Every phase of communal and administrative activities within Shanghai and their effects upon commercial and financial trends are painstakingly analysed by the authors, who, throughout their work, cling closely to actualities upon which logical conclusions are indicated. Causes and consequences are clarified and obscurities of developments, even in the political field, are dealt with, all in their proper relation to the subject in hand.

In the preface the authors say simply that, in producing their work, they have been actuated by desire to give to the public the essence of a lifetime's experience in the actual handling of realty business in Shanghai. They offer the viewpoint, so logically apparent to them, and, perhaps, so complex with difficulties to the general reader that, "the method of studying facts exhaustively and dispassionately, and reasoning as rigidly possible, enables one to forecast the future with fair accuracy." They emphasize that while conditions are constantly changing, yet fundamental principles must remain operative, and in their book they outline with a high degree of lucidity actual operation of these principles.

Only through actual first-hand experiences could such a book be written, and it has the added value that in all of its fifty-one chapters it is devoid of any form of prejudice and nowhere seeks to serve any individual interests, although innumerable individual examples in business and financial life are reviewed to clarify and to illustrate truths that are presented. Throughout, the dollar and cent angle of the subject of Shanghai real estate is kept clearly in view, but in doing this the writers have contrived to deal with ordinarily dry economic subjects in an arresting manner. Aside from the broad subject with which the writers deal so exhaustively their book has a special unique value in that it presents an accurate and detailed history of events in Shanghai through the period under review.

The new volume is a production of the printing establishment of the *Shanghai Times*, and is on sale at the price of Shanghai \$5.50.

## CHUNGKING AREA HAS EIGHTY-FIVE MACHINE WORKS

A recent survey, a Chinese correspondent writes, reveals that there are 85 mechanical and metal-working factories in the Chungking areas as against 24 in pre-war days. Forty-three of those already in operation were moved from down-river cities including Shanghai, Nanking and Hankow while 18 others were opened since the outbreak of the war two years ago.

The presence of so many machine-works has made China's wartime capital an industrial center. Most of them work on government orders as important auxiliaries to the arsenals. Others are turning out machines which go to equip new factories. Altogether they employ 4,172 workers, 66 per cent of whom are skilled laborers. Some of the bigger ones have foreign technicians.

Compared with machine-works which formerly flourished in coastal cities, the Chungking factories are small. The largest of them is capitalized at \$600,000, two others at \$500,000, and

many at \$400,000 and \$200,000. The majority of them have a capital of from \$10,000 to \$100,000 each. Seventy-two of them use electric power.

The supply of iron has been a problem for many months. Both government plants and private concerns are seeking to enlarge their capacity. Within two or three months, the daily supply can be increased to 50 tons. The supply is expected to increase to 150 tons a day within less than a year. The local production of steel, copper, lead and other metals will also be augmented.

Another problem has been that of skilled workers. Native workmen are not so efficient as those from Shanghai. As a result, those from down river now in Chungking are in great demand and their wages have risen steadily. The highest pay of a skilled workman now is two dollars a day. The factories concerned are arranging for Shanghai workmen to come to Chungking with financial aid from the Government authorities.



# Building Central China's Future Prosperity

How the Central China Development Company Defines "The New Order in East Asia"

IT will be admitted that in the Port of Shanghai and in Central China are to be found in these troubled times an amazing array of conflicting racial and national elements and interest, all striving, each in its own manner and for its own best advantage, to bring about an adjustment of conditions and to achieve a more nearly normal state of affairs in business life. Without attempting to moralize or to trace causes, it is to be recorded that the Japanese are in the position to control, and it has fallen to them, therefore, to make the beginning and to lead the way to achieve an end that every interest, racial or national, most ardently desires. No other element or interest, in fact, is in a position to do this, and fair probability is seen that what the Japanese have set out to do in times to come will be seen as the first actual co-operative union of Chinese and aliens in an effort to merge together with the common purpose of building up and developing the country.

There is no conflict of viewpoint about the crying need to make a beginning of the vast task of removing ravages of warfare and rebuilding commercial and related activities in Central China. Expansion and rehabilitation of communications, transportation, mining, electricity services, waterworks, fisheries, and along with all this, the construction of a new Shanghai, all of these are things sorely needed for the common welfare in Central China, and all elements or interests in this part of the world agree that this need exists. What future trends present-day efforts may take may be uncertain, but the need to make a beginning is apparent. The manner in which this beginning was made has taken the form of a great holding organization which bears the name "The Central China Development Company, Ltd." Since this organization came into being early in 1938, it has made a measurable degree of progress, which has been achieved through operations of subsidiary organizations. All of these are Sino-Japanese companies, and in their creation proportionate contributions in kind were made by Chinese interests while Japanese interests supplied necessary funds and technical skill.

The main function of the central holding organization, the Central China Development Company, has been to advance large sums of money to the various subsidiary enterprises and to co-ordinate into a harmonious whole all the diverse activities of the subsidiary enterprises. Organization of the Central China Development Company was effected on November 7, 1938, when it was launched with an authorized capital of Y100,000,000 in conformity with a Japanese law enacted at the 73rd Diet, which had been convoked in the spring of 1938.

The financial foundation of this central holding organization is firmly established. Half of its huge capitalization is being provided by the Japanese Government. Up to September 10, 1939, the paid up capital of the organization was Y37,000,000 and investors have the special safeguard that the Japanese Government is pledged to provide funds that may be required to help pay dividends. Under its form of organization the Central China Development Company is authorized to issue obligations in an amount five times of its paid up capital. In this vast enterprise it is clearly set forth that investment from third Power interests will be welcome, and will need only consent of the President of the Central China Development Company. In the following is given the names of the twelve subsidiary organizations and dates when they were established:—

| <i>Name of Company</i>                                                                            | <i>Date of Establishment</i> |
|---------------------------------------------------------------------------------------------------|------------------------------|
| Kachu Kogyo Kabushiki Kaisha .. .. .<br>(The Central China General Mining Co., Ltd.)              | April 8, 1938                |
| Kachu Suiden Kabushiki Kaisha .. .. .<br>(The Central China Electricity and Waterworks Co., Ltd.) | June 30, 1938                |
| Shanghai Naika Kisen Kabushiki Kaisha .. .. .<br>(The Shanghai Inland-Water Navigation Co., Ltd.) | July 28, 1938                |

| <i>Name of Company</i>                                                                           | <i>Date of Establishment</i> |
|--------------------------------------------------------------------------------------------------|------------------------------|
| Kachu Denki-Tsushin Kabushiki Kaisha .. .. .<br>(The Central China Telecommunication Co., Ltd.)  | July 31, 1938                |
| Shanghai Kosan Kabushiki Kaisha .. .. .<br>(The Shanghai Real Estate Co., Ltd.)                  | Sept. 10, 1938               |
| Kachu Tosbi-Jidosha Kabushiki Kaisha .. .. .<br>(The Central China City Motor Bus. Co., Ltd.)    | Nov. 5, 1938                 |
| Kachu Suisan Kabushiki Kaisha .. .. .<br>(The Central China Marine Product Industrial Co., Ltd.) | Nov. 6, 1938                 |
| Dai-Shanghai Gas Kabushiki Kaisha .. .. .<br>(The Greater Shanghai Gas Co., Ltd.)                | Nov. 27, 1938                |
| Kachu Sanshi Kabushiki Kaisha .. .. .<br>(The Central China Silk-Reeling Industrial Co., Ltd.)   | Aug. 10, 1938                |
| Kachu Tetsudo Kabushiki Kaisha .. .. .<br>(The Central China Railway Co., Ltd.)                  | April 30, 1939               |
| Hwainan Tanko Kabushiki Kaisha .. .. .<br>(The Hwainan Coal Mine Co., Ltd.)                      | June 15, 1939                |
| Kachu Engyo Kabushiki Kaisha .. .. .<br>(The Central China Salt Industrial Co., Ltd.)            | Aug. 21, 1939                |

It is to be noted that a period of but a few months elapsed while these twelve companies were being launched, and it may be said that, while many initial difficulties had to be overcome, a measurable degree of progress has been achieved and definitely good results are to be seen at this time. In the following table details regarding each of the twelve subsidiary organizations and of their capitalizations as in September, 1939, are given (In Y1,000):

| <i>Name of Company</i>                                    | <i>Japanese Contribution</i> |                                 |               | <i>Chinese Contribution</i> |                |
|-----------------------------------------------------------|------------------------------|---------------------------------|---------------|-----------------------------|----------------|
|                                                           | <i>Capital</i>               | <i>C. China Development Co.</i> | <i>Others</i> | <i>In-kind</i>              | <i>In-cash</i> |
| The Central China General Mining Co., Ltd. .. .. .        | 20,000                       | 4,500                           | 5,255         | 10,000                      | 245            |
| The Central China Electricity and Waterworks Co., Ltd. .. | 25,000                       | 7,500                           | 2,500         | 15,000                      | —              |
| The Shanghai Inland Water Navigation Co., Ltd. .. ..      | 2,000                        | 600                             | 1,201         | 70                          | 129            |
| The Central China Telecommunication Co., Ltd. ..          | 15,000                       | 6,000                           | 4,000         | 5,000                       | —              |
| The Shanghai Real Estate Co., Ltd. .. .. .                | 20,000                       | 5,000                           | 5,000         | 10,000                      | —              |
| The Central China City Motor Bus. Co., Ltd. .. .. .       | 3,000                        | 1,488                           | 1,500         | 10                          | 2              |
| The Central China Marine Product Co., Ltd. .. ..          | 5,000                        | 2,770                           | 1,700         | 330                         | 200            |
| The Greater Shanghai Gas Co., Ltd. .. .. .                | 3,000                        | 1,800                           | 1,000         | 200                         | —              |
| The Central China Silk Reeling Industrial Co., Ltd. ..    | 10,000                       | 2,000                           | 5,144         | 2,844                       | 12             |
| The Central China Railway Co., Ltd. .. .. .               | 50,000                       | 31,500                          | 8,500         | —                           | 10,000         |
| The Hwainan Coal Mine Co., Ltd. .. .. .                   | 15,000                       | 4,150                           | 5,000         | 4,350                       | 1,500          |
| The Central China Salt Industrial Co., Ltd. .. ..         | 5,000                        | 2,000                           | 500           | —                           | 2,500          |

## The Central China General Mining Company, Ltd.

The Central China General Mining Company, Ltd. is a joint stock company organized under the law of the Wei-Hsin Government, which is the Reformed Government at Nanking. As set forth above its authorized capital is Y20,000,000 with paid up



capital of Y15,000,000, jointly contributed by Japanese and Chinese interests. The purposes of the enterprise are the control and development of iron and other mineral resources of Central China and related enterprises pertaining to the general mining industry. When the Company was founded, its principal office was established in Shanghai, and afterwards branch offices were opened in Tokyo, Yawata and Nanking while a mining office was opened at Maanshan.

The properties brought under control of the Company are scattered widely and operations at many of the mining properties have had to be deferred on account of disturbed conditions in the areas in which these properties are located. Active work was begun in those areas where circumstances permitted, and as a first step, operations were started in the mines of Nanshan Tawashan in Tangto Hsien, province of Anhwei, in the mines along the Maanshan light railway, in Chungshan mine, Hwanmeishan mine, Sjaokushan mine and, somewhat later exploitation was begun of the mining properties along the Tsing-Shangho. Many difficulties had to be surmounted, owing largely to activities of bandits, guerilla forces and remnants of defeated Chinese armies scattered through various districts. Gradually a semblance of order was restored until operations were systematized, first at Nanshan, Washan and as early as October, 1938, repair work was completed on the Maanshan light railway, and in the same month a ship entered the port of Maanshan to load ore for the first time since hostilities began. As conditions progressively were improved and made more secure, operation were resumed at iron mines along the Tsingshanho and at the Taochung mine. Also exploitation work was begun at other properties such as the Sanshanchen iron mine and the Fenghwangshan iron mine where notable results have been achieved.

The Company plans to accelerate production from mining properties already exploited, and as soon as possible to resume exploitation of the Hwainan coal mine as well as extending operations in iron ore areas and coal fields in general in Central China. A thorough investigation is being opened of all mineral resources such as fluor-spar, manganese, antimony, tungsten, molybdenum, oxide of magnesium, alum and, in short, all mineral resources of Central China. A Committee of Estimates appointed by the Department of Industry of the Wei-Hsin Government placed a value of Y10,000,000 on the iron mines that the Company has acquired, and this sum is included in the Company's capital.

### The Central China Electricity and Waterworks Co., Ltd.

The Central China Electricity and Waterworks Company is a joint stock company operating with special privileges under the law of the Wei-Hsin Government. Its authorized capital is Y25,000,000 with paid up capital of Y20,000,000 subscribed by both Chinese and Japanese interests. The nature of this Company's business is the distribution of electrical services, sale and hire of electrical apparatus, investment and loaning of funds to like enterprises, supply of water and conduct of related enterprises.

Areas of distribution of electrical services by the Company now include Chapei, Central Ward, Nantao, Pootung, Chengju and Woosung. In December, 1938, the Company was supplying current for 29,000 electric lamps.

Areas in which water is being supplied by the Company embrace Chapei, Nantao and Pootung. In operation in Chapei are 176 kilometers of water pipes, in Nantao, 116 kilometers and in Pootung, three kilometers. All piping of the Company is in good working order and the supply is in excess of 3,000,000 cubic meters. It is to be noted that costs of electrical services and for water are below those currently charged by the American Power Company and the British Waterworks Company operating in the International Settlement of Shanghai.

The Company is planning to extend and improve installations and plant and at the same time it is intended to absorb enterprises of the same kind in Central China, thus unifying and concentrating the distribution of electrical services and supply of water at rates considerably below those currently imposed. In extending waterworks plant to supply drinkable fresh water at low rates, future increases of capital are foreseen, and whenever conditions warrant the whole enterprise of water supply will be placed in the hands of a new independent company.

### The Shanghai Inland Water Navigation Company, Ltd.

The Shanghai Inland Water Navigation Company, Ltd., like the other organizations, mentioned above, is a juridical entity, another joint stock company organized under the law of the Wei-Hsin Government with limited privileges. Its authorized capital is Y2,000,000 and its paid up capital is Y1,074,075. The purpose of the enterprise is the transport of passengers and cargoes through inland navigable waterways in Central China, the hire and charter of ships, warehousing and wharf business and accessory related businesses.

This Company was established on July 28, 1938, beginning with twenty small steamships and twelve chartered ships. Before the end of the year the number of steamships in operation totalled eighty-one, engaged in towing one hundred and forty barges in all, carrying passengers and cargo. By the end of October, 1938, the Company had carried a total of 28,371 passengers, while 22,956 tons of cargo had been transported. The Company has encountered the usual obstacles provided by bandits and guerillas, but to a large extent, this problem has been surmounted. At the close of business at the end of the calendar year of 1938 the Company paid a five per cent dividend from profits after deduction of amortization funds. The Company plans to increase the number of ships it operates and extend the navigation network it serves, while improving and enlarging warehouses. A tabular record of results the Company has achieved is as follows:—

|                  |    |    |    | <i>Passengers Carried</i> |             |
|------------------|----|----|----|---------------------------|-------------|
|                  |    |    |    | <i>June</i>               | <i>July</i> |
| Soochow line     | .. | .. | .. | 112                       | —           |
| Whangpoo line    | .. | .. | .. | 5,067                     | 5,058       |
| Chang Kiang line | .. | .. | .. | 1,576                     | 1,063       |
| Total            |    |    |    | 6,755                     | 6,121       |
| Other districts  |    |    |    | 88,053                    | 81,307      |

### The Central China Telecommunication Co., Ltd.

The Central China Telecommunication Co., Ltd., also a legal entity, is a joint stock company organized under the law of the Wei-Hsin Government. Its authorized capital is Y15,000,000 and its paid up capital is Y10,000,000, contributed by Chinese and Japanese interests.

The purpose of the enterprise is to control electrical communications in Central China, the hire of installation and apparatus, operation of related businesses and investment in subsidiary concerns. Very few telegraph and telephone offices were in operation at the time this Company was founded, but the number of offices steadily has been increased, and at this writing services by wireless telegrams are available to the public directly to Japan, the United States, Manila, Dairen, Tsingtao, Tientsin, Nanking, Soochow, Hangchow, Hankow, and with Japanese ships at sea, indirectly, through Japan communications are available to every part of Europe. City telephone services not only have been widely expanded in Shanghai and Nanking, but also have been re-opened to the public in Soochow, Hangchow, Wukiang and Changsu. Between Shanghai and Japan wireless direct telephone service has been established.

Steady progress has been made by the Company with construction work at the Chenju and Liukahan stations. Through these stations, shortly, the public will be enabled to communicate directly with Europe through a more perfectly equipped station than the one which was in service under the administration of the former Department of Communications. The Company plans extensive reconstruction of plant and development of general foreign communication services. The broadcasting station at Chenju is to be restored and a receiving station at Liukahan is being brought into operation. At the same time wire telegraph and telephone communications between Shanghai and centers in China are rapidly been developed. Services are rapidly been restored in Wusih, Changchow, Chinkiang, Wuhu, Kunshan, Sunkiang, Kashing, Taitsan, Kiangyin, Yangchow, Pukow and like centers. The Company has marked out a program under which private companies are to be absorbed.



### Shanghai Real Estate Company, Ltd.

The Shanghai Real Estate Company is another joint stock company organized under the law of the Wei-Hsin Government. The authorized capital is Y20,000,000 and the paid up capital is Y15,000,000 contributed jointly by Chinese and Japanese investors. A major activity of the Company will be city planning and in connection with this the construction of ports, buying and selling, leasing and administering lands and houses, trusts, of real estate and related businesses. It has been decided that the area contained in a circle with a radius of fifteen kilometers having its center at the mouth of Soochow creek in Shanghai shall be the initial object of the Company's city planning for a greater Shanghai. The first areas within this circle that are being developed is the extensive district surrounding the Civic Center which was planned by the former Chinese Government, and with this the adjacent port facilities along the Whangpoo River. Extensive tracts of privately owned land are being acquired by the Land Department of the Shanghai Municipal Government, former owners receiving obligations of the Company. Already not less than 906 applications have been made by Japanese industrialists to acquire land for their special uses. In October, 1938, the Company distributed a six per cent dividend to private shareholders.

### The Central China City Motor Bus Co., Ltd.

The Central China City Motor Bus Company, Ltd., is another joint stock company, unprivileged, organized under the Wei-Hsin Government. The Company's authorized capital is Y3,000,000 with paid up capital of Y1,505,000 subscribed by Chinese and Japanese interests. The purpose of the enterprise is the operation of urban omnibuses and motor vehicles for carrying passengers and freight in Central China. The present scope of the Company's business extends to the seven principal cities of Central China, Shanghai, Nanking, Hangchow, Soochow, Chinkiang, Wusih and Changchow. Services of this kind are being provided regularly to all of these cities except Wusih and Changchow. The mileage of the Company's traffic is 426 kilometers over which 102 omnibuses are operating. Motor lorry services are in process of being established. While definite financial statements have not yet been issued by the Company, it is reported that profits have been satisfactory, up to the present. The Company intends to perfect services to the seven cities named and to extend services to other centers while bringing into operation new motor lorry services. A brief record of performance follows:—

|              | <i>Passengers<br/>Carried</i> |
|--------------|-------------------------------|
| May .. .. .  | 2,838,000                     |
| June .. .. . | 2,973,000                     |
| July .. .. . | 2,962,000                     |

### The Central China Marine Products Co., Ltd.

The Central China Marine Products Company, Ltd., is another joint stock company under the law of the Wei-Hsin Government. Its authorized capital is Y5,000,000 and its paid up capital Y2,665,000. The enterprise is devoted to the operation of a wholesale fish market, buying and selling fish of all kinds, at the same time engaging in the business of ice-making, cold warehousing, transportation of marine products and related businesses. In November, 1938, business done in the fish market reached the total of Y596,000, and in the following month of December increased to Y1,130,000. About 59 per cent of this business is attributed to marine products obtained by Japanese vessels, and about 46 per cent came from products obtained by Japanese ships. The source of supply is in the fishing grounds in the neighborhood of Tsungming Island, the Chushan Islands and the waters of the islands to the north. The volume of business being done is said to surpass that of the Marche de l'Est in the French Concession.

This Company showed a net profit of Y10,000 in less than a month after it was founded and its future outlook is most promising. The present purpose of the Company is to enlarge the fish market at Shanghai, establish new markets in Nanking and in other centers, and to increase the number of fishing craft in operation.

### The Greater Shanghai Gas Company, Ltd.

The Greater Shanghai Gas Company, Ltd., is another joint stock company under the law of the Wei-Hsin Government, and has an authorized capital of Y3,000,000 and paid up capital of Y1,600,000 subscribed by Chinese and Japanese interests. The purpose of the business is the distribution of coal gas, the refinement and sale of by-products and operation of related businesses. The Company's first major project is the completion of a modern gas producing plant designed to serve the new city that is being created. Gas distribution services will be extended as rapidly as needs arise.

### The Central China Railway, Ltd.

The Central China Railway Company, Ltd., is another joint stock company under the Wei-Hsin Government law with special privileges and was founded April 30, 1939. The Company's authorized capital is Y50,000,000 and the paid up capital is Y15,890,000 subscribed by Chinese and Japanese interests. The enterprise is providing railway and long distance omnibuses in Central China, at the same time operating related businesses. The railway mileage being operated at present is 800 kilometers, connecting Nanking, Shanghai, Hangchow and Sunkafu. A brief record of performance is given as follows:—

|                | <i>Passengers<br/>Carried</i> | <i>Baggage<br/>(pieces)</i> | <i>Revenue</i> |
|----------------|-------------------------------|-----------------------------|----------------|
| June .. .. .   | 304,825                       | 58,160                      | 562,439        |
| July .. .. .   | 301,072                       | 56,060                      | 567,321        |
| August .. .. . | 362,485                       | 59,051                      | 645,468        |

### The Hwainan Coal Mines Company, Ltd.

The Hwainan Coal Company, Ltd., is a separate mining enterprise founded as a joint stock company under Wei-Hsin Government law on June 15, 1939. This Company has an authorized capital of Y15,000,000 and a paid up capital of Y9,675,000 subscribed by Chinese and Japanese interests. The purpose of the Company is the mining and sale of coal and related businesses. As the enterprise has been so recently established it is too early to present any detailed reports of its activities.

### The Central China Salt Industrial Company, Ltd.

The Central China Salt Industrial Company, Ltd., like the other organizations above listed, is a joint stock company under Wei-Hsin Government law which was founded August 21, 1939. The Company's authorized capital is Y5,000,000 with paid up capital Y250,000 subscribed by Chinese and Japanese investors. The enterprise is devoted to buying, selling and exporting salt, and also to providing financial aid and technical help in the salt industry with the purpose of producing and refining salt.

### The Central China Silk-Reeling Industry Co., Ltd.

This is another recently organized joint stock company under Wei-Hsin Government law which was established August 10, 1938. Its authorized capital is Y10,000,000, with paid up capital of Y6,422,080 subscribed by Chinese and Japanese interests. The Company is engaging in the business of silk-reeling, production of silkworm seeds and general processes of the utilization of silk cocoons, buying and selling silk thread and related businesses. Up to the present time seed production has amounted to 3,300,000 sheets of 100,000 piculs, and production of 22,000 piculs of silk threads.

In the activities of the foregoing enterprises the essential beginning work has been done with a general aim of reconstruction and restoration of normal conditions and prosperity to Shanghai and Central China. This is sure foundation upon which future efforts may be based and in the development of all these great enterprises a clear possibility may be seen that The Central China Development Company and its subsidiary company can be the instrument with which all vexing problems and differences involving Japan and third power interests in China can be adjusted and, in fact, a way opened to bring an end to hostilities in China.



# Pacific Airways

By D. in Foreign Affairs

PROGRESS in establishing air services across the Pacific has been slow. Except for a few enthusiasts, those interested in civilian aviation after the World War, both here and abroad, did not feel the same urge to explore the Pacific as they had to experiment with trans-Atlantic flights. The younger generation, in whose hands lay the development of civil aviation, conceived of foreign relations primarily in terms of intercourse between America and Europe. And there were no Northcliffes or Orteigs to offer prizes for flights across the Pacific. In 1921 air mail service had been put into operation between New York and San Francisco, and in 1929 the Dutch had opened a mail line from Amsterdam to the East Indies. But only in 1935 did a regular air service span the great 10,000 mile gap between. Even now, the aerial development of the Pacific area as a whole is still in a tentative stage.

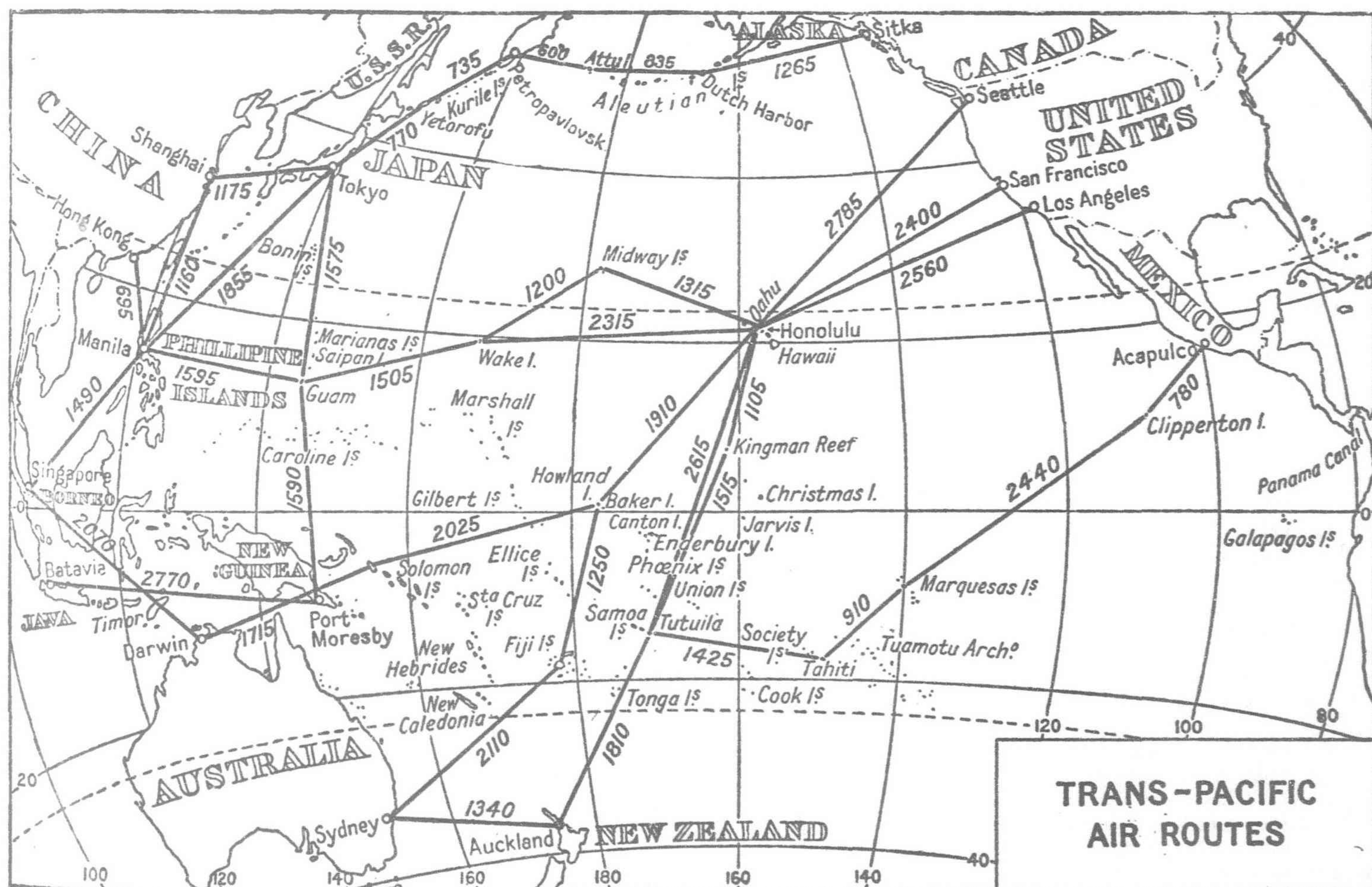
Until recently American interest in the Pacific was largely confined to the Army and Navy. They had long been concerned with the strategy of that ocean and with the balance of power in China. Both evinced a desire to operate aircraft in the Pacific area at an early date, but were frustrated by the enormous distances and by the airplane's limited technical capacity. The problem of Pacific flying was, and remains, the problem of finding a route.

The first trans-Pacific route to be flown was a detour. After the World War the late General William Mitchell began to urge the possibility of skirting both the Pacific and the Atlantic by their Arctic fringes, and to proclaim the dangers of an aerial invasion of America by those routes, especially by the Arctic stepping-stones from the Orient. A desire to test these Arctic routes played a large part in the Army's plans for its flight around the world in 1924. The successful completion of this flight served to show that

the Pacific *could* be flown with no single jump of more than 800 miles in length; but the weather conditions in the Aleutian area and north of Japan were so appalling, even in summer, as to give little encouragement for the establishment of regular operations there.

The respective rôles of the Army and Navy in the aerial defense of American coastal areas were at that time ill-defined. Indeed, this is still the case to some extent. The rivalry between the two services made each eager to be first to fly from the mainland to Honolulu. The Navy's bid was made in the late summer of 1925, when the late Commander John Rodgers and a crew of four took off in a flying boat from San Francisco. But they ran out of fuel short of their destination, were forced to alight on the water, and only managed to reach the island of Kauai, by drifting and improvised sailing, nine days after they had been given up for lost. The Army's attempt was made in June 1927, and succeeded. In a three-engined landplane, Lieutenants Maitland and Hegenberger flew from San Francisco to the Army field near Honolulu.

This feat, duplicated three times by the end of August 1927, excited great public interest; but it had no immediate commercial results, for the airplane was not yet ready to cross either the Atlantic or the Pacific with reasonable regularity in both directions. All the early flights—which were from the continent to Hawaii—were made on the down-hill slope, meteorologically speaking, since they had the trade winds on their tail; the planes never returned to the mainland under their own power. The first trans-Pacific flight directly suggestive of commercial possibilities drew upon the immensely longer cruising range of the rigid airship: when Dr. Eckener took the *Graf Zeppelin* around the world in 1929, he flew non-stop from Tokyo to Los Angeles.





There is no practicable North Pacific air route that does not include a stop in the Hawaiian Islands. The distance from Honolulu to San Francisco is 2,400 statute miles. From Hilo, on the volcano-island of Hawaii, it is a little less; but the harbor facilities at Hilo are unsatisfactory for the departure of heavily-loaded seaplanes. The distance from Honolulu to the mainland is within the commercial capacity of existing seaplanes, but it leaves little reserve for extra range or for payload. The present Pan American Clippers, with a gross weight of over 80,000 pounds, carry a maximum of 25 passengers and 1,000 pounds of mail between California and Hawaii; on the shorter hops to the west of Honolulu they can handle much larger loads. Thus the Hawaiian Islands have an importance in oceanic air transport hardly equalled by any other single spot upon the earth's surface.

The North Atlantic can be crossed from Canada to the British Isles without stopping on non-British territory; it can also be crossed from the United States to France or Portugal, either by way of the Azores or direct, without touching British soil. The South Atlantic permits non-stop passage from Brazil to the African possessions of at least three European Powers. But in crossing the North Pacific by plane no feasible way to avoid Hawaii has been found except at the price of dealing with the Arctic climate, difficult at all seasons and a virtually impassable barrier at some. Even so, a plane could avoid American territory only by flying from Canada to Russia either to the south of the Aleutian Islands or to the north of Alaska—almost impossible projects by reason both of distance and of weather. Further south, however, there is an alternative route which so far has been left entirely undeveloped. It would be possible to fly from a point on the Pacific coast of Mexico or Central America to Clipperton Island. Clipperton is an atoll under French sovereignty 780 miles from Mexico and 2,000 miles due west of the Panama Canal. It is separated from the Marquesas group (also French) by a distance almost exactly equalling that from Honolulu to San Francisco.

To the west of Honolulu (or of the Marquesas) the selection of landing places would present no problem if the question of nationality could be disregarded. Reefs, atolls and volcanic rocks rise in unnumbered thousands along a broad arc sweeping from the Japanese Islands southward and eastward to the Tuamotus. A circle drawn with Honolulu as the center and with a radius of 2,350 miles touches no land to the east or north. To the south and west, however, it encloses a large number of islands—half a dozen between Kingman Reef and Jarvis, the entire Phoenix group, scattered islands of the Ratak chain in the Marshall Islands, Wake Island and the outlying members of the Hawaiian group out to Midway.

Considered from the aviation point of view, the innumerable islands of the Southern and Western Pacific fall into three classes. There are atolls that offer a reasonably sheltered lagoon for seaplane operations; there are "solid" islands of sufficiently firm and level surface to allow the preparation of runways for landplanes; and there are rocks too precipitous and reefs too open to the sea, or enclosing lagoons too small or too thickly strewn with coral heads, to be of any aeronautical use. Islands large enough to have genuine harbors permitting a seaplane take-off are quite exceptional. Though a number of them have harbors of a sort, they all—with the exception of Pearl Harbor on Oahu—are too open in one direction and too small to be really satisfactory for seaplane purposes. They would be even worse were it not for the almost perfect constancy of the trade winds and for the fact that most of the harbors lie to leeward.

The time will no doubt come when the perfection of aircraft engineering and aerial navigation will render it practicable to fly across 2,000 miles, and more, of open water in machines capable of making a safe landing only on solid ground. One school of aeronautical opinion holds that this time has already come. But the majority of the experts maintain that passenger-carrying oceanic operations by landplane still lie some years ahead. The first true trans-Pacific flight made in temperate latitudes in a landplane was that by Sir Charles Kingsford-Smith, who in 1928 flew from California to Australia by way of the Hawaiian and Fiji Islands. This route is still available, with an alternative stopping place on Howland Island. Miss Earhart was to have been the first pilot to land on Howland: the runways which were prepared for her still await the first aerial voyager.

Quite aside from questions of safety, in the Pacific the advantage remains with the seaplane. The harbors there do not have the ice problem which vexes operations in the North Atlantic, and the atolls are well distributed. On the central Pacific route now followed by the Pan American Clippers the seaplane is indispensable. On this route either Midway or Wake must be used if flight from the United States to Japan or the Philippines is to be reasonably direct and at the same time keep to the south of the Aleutians. On Midway it might not be impossible to build a landplane runway a mile in length. On Wake, however, the construction of a runway to face the prevailing and virtually omnipresent wind is absolutely out of the question. Since the distance from Midway to Guam, without a stop at Wake, is slightly longer than that from San Francisco to Honolulu, the difficulties of landplane operations on this route are readily seen. On the other hand, both Midway and Wake are almost ideally designed by nature for seaplane activity. Also feasible for seaplane bases, though not ideal, are Kingman Reef, 1,100 miles south of Honolulu, Christmas Island near Kingman, and most of the Phoenix Islands, 500 miles farther on to the south and west.

For the moment, the central route is the only one in full commercial exploitation. Each week the seaplanes of Pan American Airways depart from San Francisco for Honolulu, Midway, Wake, Guam, Manila, Macao and Hongkong. At Hongkong they make connection with British and French lines running to Singapore and to Indo-China, respectively, where they join lines from Europe. Connections are also made at Hongkong with lines going into the interior of China—to Chungking and other points under the control of Chiang Kai-shek. Flying into the interior is done at night, and both schedule and route are constantly changed in order to avoid Japanese pursuit planes.

Pan American's service from Honolulu to New Zealand by way of Kingman Reef and American Samoa, which was experimentally operated more than a year ago, was kept from commercial exploitation only by a shortage of suitable seaplane equipment. That company's present project for operations to New Zealand contemplates a different route. Kingman Reef and Samoa having been found somewhat unsatisfactory technically, the new plan is to use Canton Island and French New Caledonia as the intermediate fueling points. The *California Clipper* completed its survey flight via Canton Island August 30 of this year; and Pan American has requested an appropriation to enable it to carry the mails regularly by that route, putting Auckland within four days of San Francisco.

From a commercial and technological point of view the line across the center of the Pacific might be supplemented by a right-angle spur from Guam to Tokyo. But flights along that route would pass over the Marianas and Bonin archipelagoes from which Japan tries rigorously to exclude foreigners. For purely commercial reasons we also might reasonably expect to see operations opened from the Dutch East Indies, French Indo-China and Japan to the Philippines.

Two historical facts have an important bearing on the present outlook for trans-Pacific aviation. The first is the extraordinary prescience shown by various American naval officers and by officials at Washington. They acted forty years ago as though they foresaw not only the coming of the airplane, but its present technical limitations. The second is the bland indifference assumed by officials in many foreign countries towards possible repercussions of aviation in the Pacific up until five years ago, when the sudden appearance of commercial airplanes over that ocean stirred up a furious burst of claim and counterclaim.

The United States owes to the farsightedness of its officials, before and during the Spanish-American War, its present ability to operate a trans-Pacific airline without touching any non-American soil this side of the quasi-American Philippine Commonwealth. Had it not been for the readiness of the American people to acquire overseas territories at the turn of the century, and had it not been for the watchfulness of the American Navy at an even earlier date, it would have been impossible for Pan American Airways, by a few swift strokes, to convert deserted strips of coral into flourishing ports of call. The inauguration of trans-Pacific air services would have been held up by the same sort of protracted and cautious international negotiation that so delayed the development of trans-Atlantic air transport. Midway was acquired in 1867, the Hawaiian group and Guam in 1898, and



Wake in 1899. In each case the motive for annexation may be described as naval. However, only Hawaii and Guam were ever endowed with real naval establishments; the attempt to locate a base at Midway was abortive, while Wake lay almost entirely neglected, receiving visits from naval vessels only very casually and at intervals of several years.

In 1935 came a sudden awakening of interest in the aerial possibilities of islands which theretofore were regarded merely as menaces to navigation. This interest served to draw attention to the very slender basis for the claims to sovereignty over many of these islands. In many cases, sovereignty by one Power had been allowed to acquire the sanction of time merely through the failure of other Powers to push counterclaims. Attention was drawn in particular to the tenuous nature of certain claims to whole archipelagoes in which islands often were separated from one another by a hundred miles or more and lacked formal occupation or government of any sort.

Take, for example, the recently celebrated cases of Howland, Baker, Jarvis, Canton and Enderbury Islands. The classic study on American geographical discoveries in the Pacific by Mr. Boggs of the Department of State\* lists all of those islands except Canton as having been explored by Americans before 1876. Further, these islands, then collectively known as American Polynesia, were in some cases supplied with American governors and in general were recognized as American territory in European atlases. However, the guano operations that took the first settlers there were later abandoned and the islands themselves were vacated. In the course of time whatever recognition British official opinion had once given to American possession was forgotten and British maps began to show the islands as British territory. Consequently the announcement of actual American colonization in 1935 occasioned indignation in the British press and caused questions to be asked in Parliament. Though there has been no formal surrender of claim by Britain, she seems at least tacitly to have accepted exclusive American rights to Howland, Baker and Jarvis, all islands of the "solid" type. On the other hand, Canton and Enderbury, the former an atoll well suited for seaplanes, are now jointly occupied by British and American parties. A recent executive order of the President of the United States placed both islands under the administrative jurisdiction of the Secretary of the Interior; at the same time the British Government has given inquirers assurance that British rights will be fully protected. An exact determination of the respective rights of each nation obviously remains for later negotiation. It should be mentioned that there are also islands where the British claim to unqualified sovereignty, though not formally challenged, is nevertheless not fully conceded by American opinion. Hull Island, close to Canton and Enderbury, is one such case, and Christmas Island is another. The cordiality of Anglo-American relations insures an amiable composition of these differences, and we are probably safe in predicting that the claims will be settled so that one will offset another. In some cases a genuine condominium may possibly be set up.

It is a generally accepted principle that the airlines of one country can enter or pass over the territory of another country only after obtaining the latter's consent. However, the Pan American Convention on Commercial Aviation—ratified by the United States, Mexico, Nicaragua, Guatemala and Panama—is equally explicit in granting to air commerce the free right of passage from one nation to another. Article 21 reads: "The aircraft of a contracting state engaged in international air commerce shall be permitted to discharge passengers and a part of its cargo at one of the airports designated as a port of entry of any other contracting state, and to proceed to any other airport or airports in such State for the purpose of discharging the remaining passengers and portions of such cargo . . . provided that they comply with the legal requirements of the country over which they fly, which legal requirements shall be the same for native and foreign aircraft engaged in international traffic."

In any event, the United States will for the next six years be able to operate across the Pacific at least as far as the Philippines without seeking anyone's permission. After 1945 the Philippine Commonwealth will presumably be in full control of its own foreign relations and therefore able to decide for itself what foreign airlines are to operate over its territory. Up to now no foreign airline has entered the Philippines, and though there have been

periodic reports that the Royal Dutch Air Lines were on the point of extending their services from the East Indies north to Manila, it appears that thus far no formal action has been taken upon any official request for permission to operate such a line.

To enter China, Pan American Airways found it necessary to deal with several foreign governments. Before the current war, operations into ports under Chinese sovereignty were hindered by China's disinclination to admit Japanese airlines to Chinese territory and by Japan's unwillingness to see other Powers get into China ahead of her. Only the foreign-controlled ports in South China were available; Pan American hence made private agreements with the Portuguese and British for admission to Macao and Hongkong. Being of a private nature, and thus not binding on the United States Government, these agreements obviously could contain no provision for reciprocity. In Macao this fact has so far been of little importance, since the Portuguese have announced no plans for organizing intercontinental air transport under their own flag. But in Hongkong the question is more serious, and the agreement concerning that colony consequently contains safeguarding provisions which allow cancellation under certain conditions. It is under another of these privately negotiated contracts that the line to New Zealand was launched a year ago. Though New Zealand's action occasioned some indignation in London, the Dominion Government has shown no disposition to subordinate its own interests to the wish of the British authorities.

The scope of British intentions in the eastern Pacific is not yet clear. The interest of the British in Canton and Enderbury Islands at least suggests that they do not intend to leave the trans-Pacific route to exclusively American exploitation. In that case, the key to their problem would seem to be the right to enter Honolulu. And unless the United States overcomes its aversion to foreign operation in an area of such military importance, there will be no alternatives except the very roundabout Marquesas-Clipperton route or a non-stop flight of 4,000 miles from Christmas Island to San Diego. On neither of these routes would the British give any real competition to Pan American's much more direct service.

At least theoretically, the French possess a better opportunity to operate a Pacific airline under their own sovereignty than do the British. If a French line used Clipperton, the only non-French soil on which it would have to stop between the Asiatic and American mainlands would be New Guinea (Dutch or British). However, such a line would run well to the south of the Equator and would thus have to depend upon the use of one of the tiny French islands lying just west of Samoa (e.g., Wallis or Futuna) where there are no facilities for seaplane bases. In any event, the French have so far shown little interest in extending their air routes from Indo-China to French Polynesia, and still less to the coast of America.

Among the European nations, The Netherlands makes the most purely commercial approach to air transportation. Yet although the Dutch are less concerned than many with imperial motives, even they have laid out their major line from Amsterdam to Borneo. After several years of negotiation they now operate a service to Australia. Their aspirations certainly include lines to the Philippines, though they do not, so far as can now be seen, extend beyond 150 East.

There remain the Japanese. Though Japan is a party to the International Convention for Air Navigation, she has so far made no agreements with any of the other signatories. Japanese-controlled airlines have been limited to Japanese territory, which in recent years has come to include Manchoukuo and more lately northern China. The Japanese have lines to Formosa, to Korea, and now to Peiping; and they would no doubt like to enter the Philippines. But the full extent to which they have developed airlines outside the home islands is not known. There have been constant rumors that an operating base has been set up on Saipan, 120 miles north of Guam. A Japanese report to the Mandates Commission in November 1936, announced that an air service to cover the islands under Japanese mandate would soon be put into operation. Yet, after three years, the status of this project is still shrouded in mystery.

\* S. Whittemore Boggs: "American Contributions to Geographical Knowledge of the Central Pacific," *Geographical Review*, April 1938, p. 177-192.



# Civil Aviation in Japan

(Board of Aviation Report in Tokyo Gazette)

THE interest of the Japanese people in aviation has been stimulated to a great extent by the impressive victories of the Imperial Army and Navy air forces in China during the past two years and by recent successful goodwill flights of Japanese airmen to Europe, Thailand (Siam) and Iran.

The importance of civil aviation is increasing in Japan, as in other countries, not only as a means of high-speed transportation, but as a reserve force for national defence, which is highly significant at this time of unprecedented change in East Asia and international political and military strife.

With the establishment of a sound national policy for air transportation and the aviation industry becoming urgent, the Department of Communications has adopted a new policy for the readjustment and development of civil aviation and the development and extension of air routes in East Asia along the following lines:

- (1) Establishing and extending both domestic and international air routes.
- (2) Strengthening the aeroplane manufacturing industry.
- (3) Training civilian aviators and mechanics.
- (4) Construction and extension of facilities for aviation.

## New Routes and Extension of Old Ones

In the autumn of 1922, the Japan Aerial Transport Institute inaugurated the first air service in Japan between the city of Sakai, near Osaka, and the Island of Shikoku, in the Inland Sea. Hydroplanes were used. But it was not until 1929 that commercial air transportation worthy of the name was established by the Japan Air Transport Company with a line connecting Tokyo, Osaka and Fukuoka, and later between Fukuoka and Dairen.

Combined efforts of the Government and private enterprises during the ten years that followed have brought tremendous im-

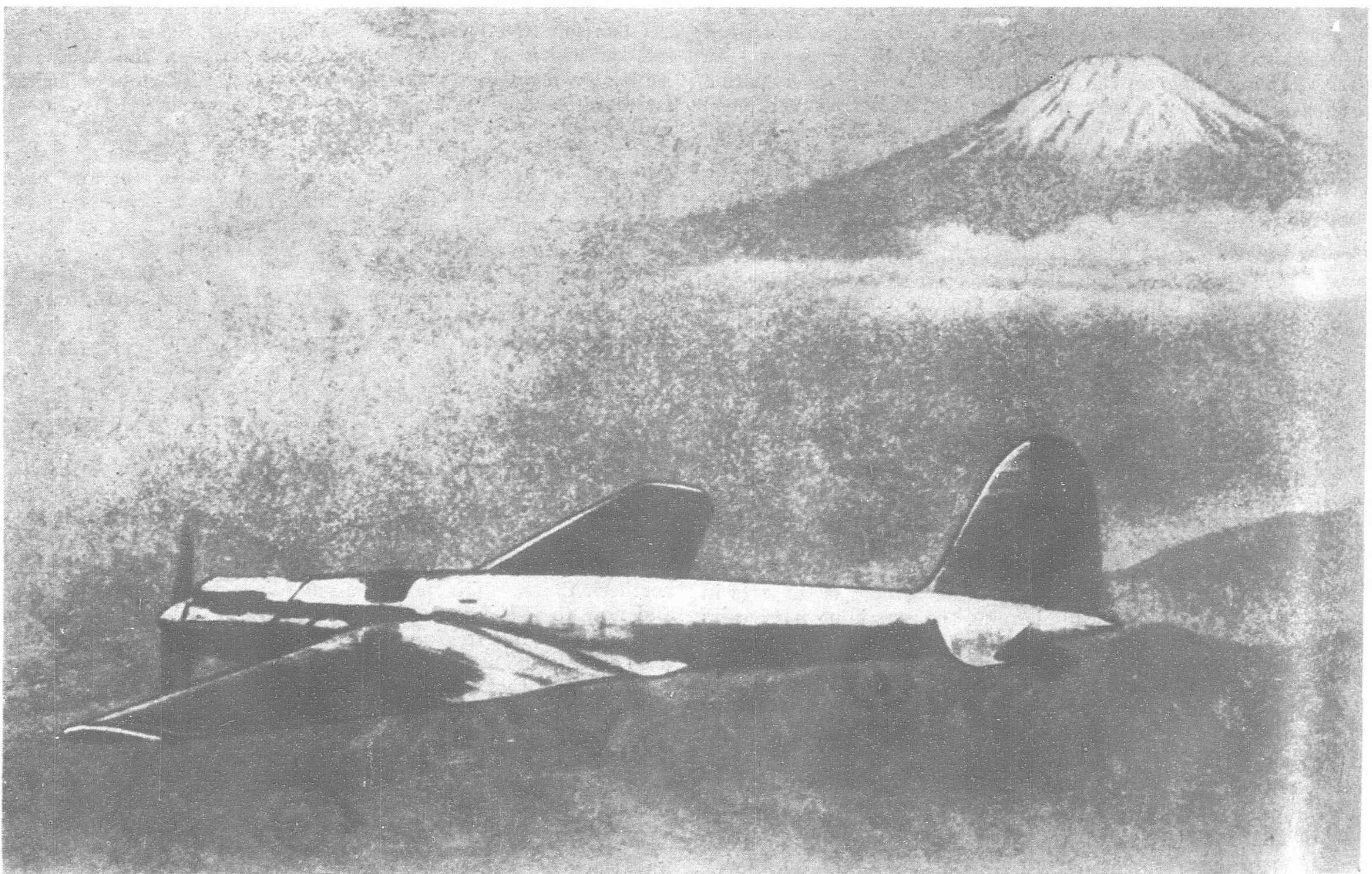
provements to civil aviation in Japan. Airways to-day virtually cover the Empire. Japan and Manchoukuo are connected, and regular lines operate between Tokyo and Dairen, Fukuoka and Taihoku, Tokyo and Sapporo, and Tokyo and Hsinking. Last October, Tokyo and Peking were linked, as were Fukuoka and Nanking, to meet the acute demand for speedy communications between Japan and the occupied areas in China. With the inauguration of aerial service to the Asiatic mainland, a new epoch was born in the annals of Japanese aviation. Early this year, giant seaplanes went into service between Tokyo and Palau, thereby shortening the distance between Japan and the South Sea Mandated Islands from a two-week voyage to a two-day flight and laying a stepping-stone for the future extension of Japanese air routes to Australia, our great southern neighbor, and the islands of the Pacific.

The total mileage of airlines in Japan passed the 19,000-kilo-meter mark this year. The number of passengers and the volume of goods carried by air have increased accordingly.

The development of air services operated by the Japan Air Transport Company (now the Japan Airways Company) during the ten years of its existence is traced as follows:

DEVELOPMENT OF AIR SERVICE BY THE JAPAN AIR TRANSPORT COMPANY, 1929-1939

| Year<br>April-<br>March | Length of<br>Route (in<br>kilometers) | Number of<br>Flights | Distance<br>of Flights<br>(in kilo-<br>meters) | Passengers |                       | Goods              |                    | Mail Matter        |                    |
|-------------------------|---------------------------------------|----------------------|------------------------------------------------|------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
|                         |                                       |                      |                                                | Number     | Aggregate<br>Distance | Volume<br>(in kg.) | Ton-kilo-<br>meter | Volume<br>(in kg.) | Ton-kilo-<br>meter |
| 1929-30                 | 2,575                                 | 2,558                | 1,020,300                                      | 2,755      | 1,104,610             | 2,444              | 1,029              | 8,594              | 3,453              |
| 1930-31                 | 2,575                                 | 4,454                | 1,670,900                                      | 7,642      | 2,864,260             | 8,966              | 3,614              | 25,063             | 9,063              |
| 1931-32                 | 2,575                                 | 4,867                | 1,753,230                                      | 6,766      | 2,317,615             | 32,414             | 11,616             | 40,871             | 14,143             |
| 1932-33                 | 2,575                                 | 5,301                | 1,744,105                                      | 10,716     | 3,178,395             | 28,510             | 9,539              | 93,950             | 23,594             |
| 1933-34                 | 2,575                                 | 5,224                | 1,715,400                                      | 10,992     | 3,180,495             | 28,049             | 9,541              | 219,560            | 66,120             |
| 1934-35                 | 2,618                                 | 5,648                | 1,683,652                                      | 12,187     | 3,252,248             | 57,023             | 17,026             | 197,199            | 55,657             |
| 1935-36                 | 4,228                                 | 5,846                | 1,833,056                                      | 10,822     | 2,876,452             | 67,497             | 19,567             | 263,960            | 80,627             |
| 1936-37                 | 6,925                                 | 9,205                | 2,856,262                                      | 18,955     | 6,203,937             | 80,116             | 26,845             | 354,641            | 120,349            |
| 1937-38                 | 10,306                                | 16,270               | 5,126,385                                      | 47,342     | 17,012,760            | 248,607            | 122,059            | 591,158            | 242,421            |
| 1938-39                 | 15,335                                | 17,144               | 6,209,873                                      | 69,268     | 32,496,937            | 297,807            | 178,441            | 819,261            | 419,163            |



Wings of Dai Nippon



The company operated a total of nine air routes in 1936, adding four more in 1937 and still two more in 1938. The lines existing in 1936 and the subsequent extensions are as follows:

*(April 1936 to March 1937)*

Tokyo-Dairen, Osaka-Shanghai, Fukuoka-Taihoku, Tokyo-Niigata, Tokyo-Toyama-Osaka, Osaka-Matsue, Osaka-Kochi, Taihoku-Takao and Taihoku-Karenko.

*(April 1937 to March 1938)*

Tokyo-Dairen, Fukuoka-Taihoku, Tokyo-Niigata, Tokyo-Toyama-Osaka, Osaka-Matsue, Osaka-Kochi, Taihoku-Tainan, Taihoku-Karenko, Tainan-Bako, Tokyo-Sapporo, Tokyo-Hsinking, Keijo (Seoul)-Dairen, and Tokyo-Nagoya-Osaka.

*(April 1938 to March 1939)*

Taihoku-Tainan and Taihoku-Karenko services in Formosa were added to the new Round Island Route and new routes were opened between Tokyo and Peking, Fukuoka and Nanking and Keijo and Seishin.

The above table reveals that the length of airlines operated by the Japan Airways Company to-day are six times the length of routes existing during the first year of the company's existence ten years ago; the number of passengers carried have increased by 25 times, the volume of goods hauled has been multiplied by 120, and mail matter conveyed has increased 95 times.

With the unexpected spread of the China Affair to its present magnitude, embracing the length and breadth of China, and the consequent advance of economic reconstruction in East Asia, it has become of paramount importance to promote aviation on the Asiatic Continent through the systematic extension, unification and control of the air routes over the three sister countries of Japan, Manchoukuo and China.

With the expansion of the Chinese areas under Japanese influence, foreign aviation companies such as the China National Aviation Corporation, backed by American interests, and the German Eurasia Aviation Corporation have been obliged to narrow their range of operation.

The China Aviation Company was established under joint Chinese and Japanese capitalization in December, 1938, with the former Huitung Company as its nucleus. Two months before, the Japan Airways Company had opened new routes to China, as mentioned above. Measures now are pending for increasing the capitalization and expanding the facilities of the new China Aviation Company.

Despite the noteworthy progress of the past few years, the management of aviation companies has encountered difficulties such as huge expenditures for costly planes, equipment and fuel, making it hard to carry on business with profit. Yet in view of the importance of aviation in the national progress of Japan, especially at this moment, it must be pushed to even greater development. Consequently, full recognition has been given the necessity of national measures to promote civil aviation, which hitherto has been left in the hands of private enterprises. The establishment of a national corporation called the Japan Airways Company (Dai Nippon Koku Kabushiki Kaisha) through the merger of the Japan Air Transport Company and the International Air Transportation Company, has been the first step in this direction.

The Government early this year submitted the Bill for the Establishment of the Japan Airways Company to the 74th session of the Imperial Diet. Following its enactment, the Japan Airways Company Law was promulgated in April and was put into force in May, 1939.

Under provisions of the Law, the present capitalization of the company, which is ¥25,500,000 will be increased to ¥1,000,000,000. As a national corporation, it will be put under the protection and direct control of the Government, and not only will monopolize the air transportation of Japan but also will concern itself with the financing and development of aviation companies on the Asiatic Continent, including the Manchoukuo Aeronautical Company, a national corporation of Manchoukuo, and the China Aviation Company.

The Japan Airways Company's expansion program envisages the improvement and strengthening of air transportation facilities for the existing Tokyo-Hsinking line, the inauguration of a new Tokyo Hsinking direct line, stabilization of the new service between Japan and the South Sea Mandated Islands, and the establishment of a Japan-South China route. The future linking of Japan with American and European countries also is being considered.

## Promotion of Aircraft Manufacturing

The aircraft manufacturing industry has not kept abreast of the progress made by other Powers. Improvement in the technique of aircraft manufacture, enlargement of the productive capacity of aircraft factories and improved training for specialists and mechanics are keenly demanded in order to raise the standards of the industry in Japan to the level of those in the most advanced countries. In order that a greater supply of superior aircraft may be manufactured without excessive cost, the Aircraft Manufacturing Industry Law was promulgated last year. Under its provisions, the Government is authorized to give proper protection and encouragement to aircraft manufacturers, at the same time effecting systematic control over them.

The Aircraft Manufacturing Industry Law prescribes a licence system for the manufacture of aircraft, engines and propellers, designed to prevent an excessive increase in competitive factories. It also authorizes the Government to award various privileges and protective measures to these manufacturers, and includes several State orders necessary for national defence and public interest. At present a total of 14 companies are authorized to make aircraft and accessories thereof under the Law.\* But the productive power of these companies is far short of the present and prospective demand. Therefore, to assure the attainment of the proposed program for the development of aviation, effective measures must be worked out immediately for the expansion of production facilities in existing factories and to encourage the establishment of new companies.

The China Affair has given great impetus to aircraft manufacturing in the country. The industry has been handicapped from the start to a certain extent, however, and is not yet totally independent of the influence of Western countries. The types of aeroplanes and engines mostly follow foreign models, and many of them are manufactured under foreign patents, involving the payment of large royalties to patent holders abroad. The present ability of Japanese aircraft manufacturers and the productive capacity of their factories are somewhat insufficient to meet the ever-increasing demand for superior planes in great numbers.

Established in Japan at present are the Army Aeronautical Institute, the Naval Aviation Arsenal and the Aeronautical Institute, Tokyo Imperial University, for research and investigation in the special science and practical art of aviation. These institutes are making valuable contributions to their respective spheres of activity. But there as yet has been no institution specially established for scientific research, both fundamental and practical, to lay technical foundations for the aircraft manufacturing industry.

The Committee for the Establishment of a Central Aeronautical Institute, therefore, has been organized, including as its members competent authorities and experts in aviation manufacture. In accordance with the final recommendations of the Commission, the Government has decided to establish the Central Aeronautical Institute, to carry out an exhaustive five-year research program at a cost of ¥50,000,000. The Institute came into being on April 1, 1939, as an establishment under the jurisdiction of the Department of Communications. The Institute at present is concerned with investigations looking toward (a) the manufacture of high-speed aircraft, (b) large-sized passenger planes, and (c) the possibility of greater production of superior aeroplanes. The installation of all equipment necessary for such thorough and specialized research is now being carried out.

## Training of Aviators and Mechanics

Equally important as program for improving the aircraft manufacturing industry is the need for proper training of aviators and mechanics. Skilled flying personnel is required for the sound development of civil air transportation and for reserve defence requirements. Hitherto the work of the Board of Aviation in training pilots and mechanics has been rather lax, and only a small number of young men was sent to military schools for training as pilots and mechanics. But the execution of the proposed program

*(Continued on page 508)*

\*The Board of Aviation announced in August that it had extended permission to the Kanegafuchi Spinning Company, largest spinning concern in East Asia, to establish the 15th aircraft manufacturing company. The new concern is to be capitalized at ¥30,000,000 and will be known as the Kokusai Kogyo Kabushiki Kaisha (International Industry Company, Limited).



# A Nisei Visits Hainan Island

*(Here is another article of the interesting series recently contributed to The Far Eastern Review by the well-known American born Japanese journalist, Kazumaro B. Uno. In the capacity of war correspondent representing a group of newspapers published in the United States, the writer has been making a tour of China and at this time is proceeding into Mongolia).*

By KAZUMARO B. UNO

HERE lies off the coast of China an island as large as the state of Kentucky and richer in natural resources. Unfortunately, this island has long been ignored by China and the rest of the world and even when the Japanese occupied it in February of this year, it seemed insignificant. Hainan Island is not to be ignored by the Japanese.

I arrived here early in the afternoon from Taihoku, Formosa, on a Douglas DC-2 after a five hour flight, stopping only at a certain island occupied by the Japanese navy near Hongkong. The plane belongs to the Japan Airways Ltd., and is chartered by the Japanese navy between Formosa and Hainan Island, carrying only those officially or semi-officially connected with the Japanese military.

When the island become visible from the plane, it looked like a large barren desert floating on the sea. Coming closer, I was able to see a river twisting itself from the interior, pouring its dull brownish water into the glittering blue still waters of the South China Sea . . . unlike the mouth of the Yangtze River where the sea is brown for hundreds of miles around. When the plane began to swoop earthward for a landing, I was able to see Hoihow, our destination, in the distance. Almost bare of vegetation, few tall buildings amongst a scattered group of dilapidated structures. . . . Hoihow looked, from the air, like a ghost town. After a perfect three-point landing, the door of the cabin was opened and suddenly, the heat flooded the cabin and it affected me as if someone had hit me with a baseball bat, in other words, the heat was terrific. "Hot" . . . is a mild word for it!

A car belonging to the Navy Headquarters was waiting and I boarded it. In leaving the new air-port, I noticed that many hundreds of coolie were working. But what astounded me was to discover that the coolies here were not men but women. I asked the driver of the car what had happened to all the men. His reply was that it is customary in South China for the women to do manual labor and men devote themselves to matters requiring more brain-work; consequently, the women here are physically strong and capable of doing anything that a man is able to do.

At the Naval Headquarters, I met Commander Matsumoto who received me very courteously. I requested that if possible, I would like to meet some Americans. This, the Commander said, was a simple matter for there are several right in the city at this time and he would arrange to have me taken to them immediately. Through his efforts, an escort from the Japanese Consulate was obtained and in a navy car, I was directed first to visit the outstanding American in Hainan Island, Mr. E. Groff-Smith, Commissioner of the Maritime Customs of China.

## An American from Boston

I was led into the Customs Commissioner's office by a Deputy, a Japanese by the name of Gotaro Yoshida, who was overwhelmed to have an opportunity to use his English. As a result, as soon as I was facing the Commissioner, the Deputy made an unredeemable blunder by blurting out: "Mr. Groff-Smith, may I introduce you to a Japanese newspaperman from America, Mr. Uno, who came here especially to interview you!" I could have sworn out loud. It is hard enough to obtain an honest opinion from a foreigner in China, let alone mentioning newspaper and interview. And the Deputy did the trick, for at that moment, I felt the Commissioner retreat and make a defensive stand against whatever I might seek to cause him to say. And as we shook hands, his first words were: "I should like to have you understand that in my capacity as Commissioner of the Maritime Customs of China, I am not allowed to give interviews."

A very tall gentleman with British physical features and German name, Mr. Groff-Smith is an American born in Boston, Massachusetts, but, he said, he had spent more time in Pennsylvania and more than 23 years in China, principally at Ichang, Peking and Shanghai, having been transferred to Hoihow only three years ago. And throughout our brief meeting he was ever alert to refrain from any statement that possibly might be construed as an indiscretion. Hoihow now is strictly under control of the Japanese.

Once I ventured to ask if he were being paid by the Japanese authorities since the Japanese occupation, hinting that the new government has precedence over the old Chinese regime. His reply was to the effect that there are some things in China that cannot be "won" or conquered by the Japanese, which is even free from Chinese jurisdiction, for instance, the customs and postal services. And Mr. Groff-Smith was absolutely correct. Not only the customs and postal service is out of control of the Chinese government, but even the whole of China's financial system is in

the hands of foreigners. As a mere example, there is hardly a telephone in all of China which is owned by a Chinese. It is a monopoly controlled by American interests. And the larger theaters . . . they are practically all "incorporated in U.S.A."

I asked for his opinion in regards Japanese coming into control of China's Maritime Customs.

"There are several Japanese already in the customs service. But to take complete control is another matter. It is beyond their power to cope with the complicated system under which the Maritime Customs is being operated," he said and as he paused, he quickly



The busy main street of Hoihow on Hainan Island. The city was saved from the Scorched Earth Policy as the Japanese naval landing party surprised the defending Chinese forces



added, "However, I don't want to say anything about the Japanese military. I'm not concerned with their business."

I knew that it would be useless to pursue the subject, for Mr. Groff-Smith then changed the subject of our conversation to the European War. He was far more informed on the European situation than I since I could not read the Japanese newspapers in Taihoku nor have the opportunity to listen to an English radio broadcast from abroad. As a matter of fact, although war had been declared several days before and a British ship carrying hundreds of Americans was sunk by a German U-boat, I was completely ignorant of the developments. Mr. Groff-Smith freely expressed his opinion on the subject stating that the Germans cannot and will not win the war, for their cause is absolutely unjustified. The whole world, he said, is against Germany and she cannot fight the world. The United States will always remain neutral although she has ample cause to hate Germany, especially since Germany had sunk a passenger ship on which many Americans lost their lives. As for Italy, Mr. Groff-Smith added, she is no longer pro-German and distrusts Soviet Russia. Consequently, she will remain neutral and in the event she enters the conflict, probably will be on the allied side. As for the United States, she will not fight for England again and be left holding the burden of the war on her own shoulders, he concluded.

When he asked for my candid opinion, I spoke freely, admitting that I was uninformed on the inner causes of the conflict. However, I spoke sympathetically about Germany. I went on to say that if, according to the new German-Soviet pact, Russia enters the war on Germany's side, and the United States remains neutral, the combination of Germany and Russia could have the advantage over Great Britain and France and Italy will remain faithful to Germany. The doom of Poland was inevitable. As for Japan, she will not enter the European conflict, for she must first overcome the problems facing her in China and it will not be for another generation before normal conditions return to China proper because of the wholesale destruction wrought upon the cities and the effect of the hostilities upon the masses. What about the United States? In my honest opinion, she has to stay neutral due to domestic problems. The country is divided in sympathy, political parties are maneuvering for the presidential election next year, and a national depression can be averted by a boom in heavy war industries. Neutrality is the only safe and sane stand for the United States.

I tried again and again to get Mr. Groff-Smith to make comments on the Japanese occupation of Hainan Island, but it was futile. And throughout my visit, I could not help but sense his defensive attitude. He spoke with carefully chosen words.

### He Loves and Is Loved

Lying near the outskirts of Hoihow is a compound surrounded by dull grey brick buildings which are connected partially by the same type of brick walls. Conspicuously and gloriously, floating on a thin, tall mast, is the "Stars and Stripes" of the United States of America. Evidently, this compound is an American property, possibly a mission hospital. And as the navy car stopped before a huge iron-barred gate, the guide disclosed that this was an American church and hospital. As I stood before the iron portals of the mission, I noticed a large paper bulletin pasted before the door written in two languages, English and Japanese. It was a certificate from the American Consul-General in Canton verifying the fact that this was an American mission registered with the Consulate. An elderly Chinese opened the gates for me, I stepped in... just at that moment a foreigner was passing through one of the corridors of the mission compound. I rushed

to him and asked if he was the Bishop in charge of this mission. He paused in his step, a broad smile came to his face and almost independent of his will, his hands came out. . . . I knew then that this man was an American. I accepted his hand. Hand-shaking is pleasant if you are shaking hands with the right person. After the Japanese custom of bowing for so long, it was good to revert to hand-shaking. In a moment, I had produced my card and introduced myself. The smiling man reached for his wallet and presented me with his card which read: "Dr. Nathaniel Bercovitz—American Presbyterian Hospital—Hoihow, Hainan, China."

Dr. Bercovitz in appearance is tall, brawny, and his face is full. My first impression was that of a San Francisco union longshoreman. But after a word or two, one realizes that his heart is even more attractive than his magnetic personality. The manner in which he associates with his "Chinese flock" and their reaction, I can only think of one phrase which explains his position here in Hoihow . . . he loves and is loved.

When I had told him that I was from California, he patted me on the back with his huge, heavy hand and said: "I'm a native Californian myself. I'm from Los Angeles, I graduated from the Occidental College and later received my degree at the University of California at Berkeley. Incidentally, my wife is also a Californian, her home is in Berkeley where she graduated too."

You can imagine how we all felt; here we were in Hainan Island in China . . . forgotten and insignificant, thousands of miles from home, and we discover that we are from the same state, city and probably walked the same sidewalks. Personally, I was very glad to become acquainted with these people.

Before I could ask him any question, he was doing all the talking. He was saying: "You don't know what a wonderful island Hainan Island is. It's just like the Hawaiian Islands. As a matter of fact, it is in the same latitude, 20 degrees above

the equator. Same climate, abundance of rich fruits and nuts, and unlimited natural resources to be developed." And as he talked, he was leading me into the compound and between the buildings I noticed verdant gardens with wild flowers, tropical plants and trees. Dr. Bercovitz was still talking: "I have a son and a daughter, both are now in Berkeley at the University of California. My son will be coming here shortly." Then we came to a garden where a pony was feasting on the green. The doctor pointed to the pony and said, "That's my daughter's pony. She used to ride him when she was a little girl." And I imagined the daughter now a beautiful co-ed at the University of California. We came to a halt under a large tropical tree. I wondered what was the matter.

"Know what a gibbon is?" he asked with a smile.

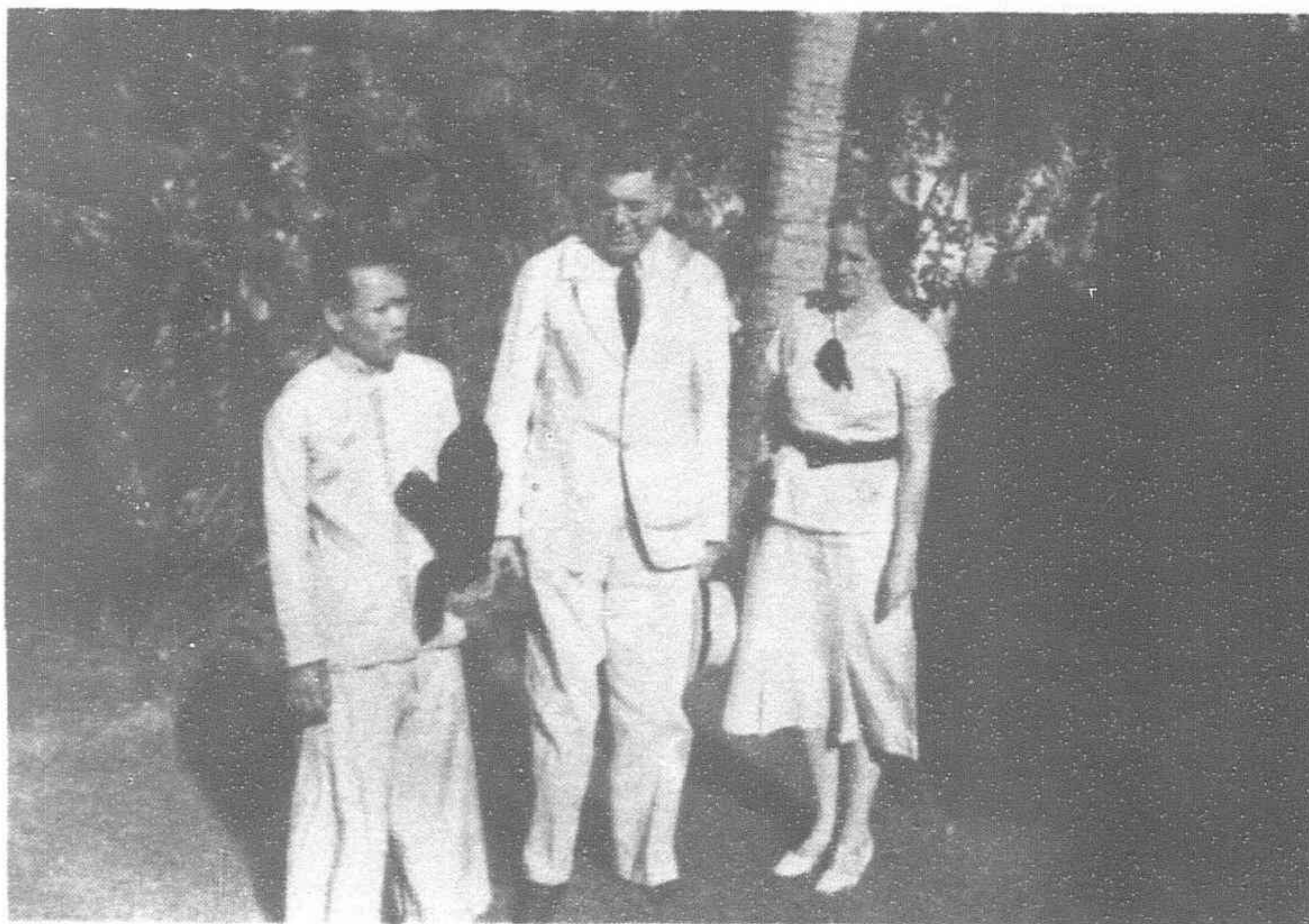
"It's a kind of a monkey, isn't it?" I replied.

"Ever seen one?"

"I don't remember exactly what a gibbon looks like, but I have a very faint recollection that it is a large monkey with long arms and small face," I answered honestly.

The Doctor laughed and said: "What monkey hasn't a long arm and rather small face? Well, there's our prize gibbon up there." And he pointed high up in the tree where I could barely see a black object among the green leaves of this unusual tropical tree. Doctor Bercovitz called the gibbon by some name and it came swinging through the branches like a trapeze artist, jump to the ground from the height of about twelve feet, ran to the Doctor's feet and tugged at his trouser, letting out a screeching sound. The Doctor lowered his muscular arm and the gibbon climbed to his chest.

The Doctor explained that the gibbon is a somewhat rare monkey and even on the island very few are caught. The gibbon



Dr. and Mrs. N. Bercovitz of California. Dr. Bercovitz is Superintendent of the American Presbyterian Hospital at Hoihow. Dr. and Mrs. Bercovitz are pictured here in the Mission garden with their pet gibbon in the arms of their Chinese cook



is usually black, weighs about 20 to 30 pounds, is perfectly harmless, and feeds chiefly on bananas. It makes an ideal domestic pet, and fraternizes well with even dogs and cats.

Presently, an elderly lady joined us in the garden. She was introduced as Mrs. Bercovitz. Taking this opportunity, I asked Dr. Bercovitz if he would permit me to take an informal picture and he said "yes" provided I gave him time to get on a tie and coat. Then a Chinese cook was called and an informal picture of Dr. and Mrs. Bercovitz, the cook and "Gibby," the gibbon was taken.

Later, I was taken on a tour of the compound and the mission hospital which is supervised by Dr. Bercovitz. The mission itself is under the supervision of Rev. David S. Tappen of Pasadena, California, who at the time was visiting another mission under his direction not far from Hoihow. Incidentally, the American Presbyterian Mission and School was founded by Dr. H. M. McCandliss in 1885. He also introduced western medicine to Hainan Island. After serving the Chinese of the island for 41 years, Dr. McCandliss passed away in 1926 to be succeeded by the Rev. Mr. Tappen.

As we were passing through one building after another, I heard an organ in a small chapel playing a familiar tune. I asked Dr. Bercovitz for permission to step in. The wish was granted and we stepped into a small chapel to find a young Chinese nurse seated at the organ, one of the kind you pump with your feet. It was a Chinese version of a song that goes in Japanese: "Shuware wo aisui..." that's all I remember in Japanese. In English, the words read: "Jesus loves me, this I know. For the Bible tells me so. Little one to Him belong, they are weak but He is strong..." I told Dr. Bercovitz that I knew this hymn and he cheerfully reminded me that this is the most popular song in the world. And I'm sure he is right.

In the mission hospital, I was shown the various wards for Chinese patients, operating room, kitchen, clinic and X-ray room. When asked what disease was prevalent in Hoihow at this time of the year, Dr. Bercovitz replied: "Typhoid fever and malaria." Have you any cases of leprosy, I asked and he told me that there was a special leper colony some distance away from the city and at present it had 160 inmates. These, the doctor added, are being fed with rice provided by the Japanese military. And he went on to say how the Japanese military and naval officials were very kind to him and offered to co-operate in any way to maintain the good work being carried on by the American missionaries. He cited an example of Japanese thoughtfulness: "Soon after the occupation, the Japanese seamen built barracks adjacent to the mission compound just next to the women's dormitory. At that particular spot, there never was a fence of any kind and before we could approach the naval high command to help build a fence, the seamen voluntarily constructed a high board fence which greatly relieved the situation and much to our appreciation."

After the inspection of the hospital, he led me into his study and brought out numerous photographs which he said he had taken during the past few years. They had been enlarged. He had many unusual pictures of the Hainan Island aborigines, these natives reminding me of the aborigines of Formosa. There were also many pictures of native Chinese bringing sick patients to the hospital in crude carriages manned by friends and relatives. Dr. Bercovitz explained that the native Chinese of Hainan Island are the most difficult patients to handle because they are extremely superstitious. They believe in voodooism and witchcraft, scar

themselves and bleed themselves, praying before idols, believing that such will cure them of their sufferings.

Once, I asked for his opinion in regards Japanese activity on the island and if there are any hopes for friendly relations between the Chinese and the Japanese.

The people of this island have been oppressed victims of corrupt government for many years. During the early 1920s, there were prospects for developing numerous industries and no sooner had they got started when Chinese-Communists invaded the island and destroyed all factories, mills, and even crops. Then the Nationalist Army came and drove them into the hills, regaining control for the government officials, who in turn began to bleed the people to the bone by means of taxation and "squeeze" money. During the days of the Chinese-Communists, as many as 5,000 natives fled from the island to the mainland per week. And ever since, the population has dwindled. To-day, there is much banditry outside of the cities. There is no such a thing as organized resistance, it is plain banditry. Consequently, only after the occupation by the Japanese, peace and prosperity has been restored. As for the future, at this early stage, it is hard to say what will happen; however, I am optimistic for the future of Hainan Island, Dr. Bercovitz concluded.

The visit with Dr. Bercovitz was truly worthy of every minute I spent on the mission compound. I shall neither forget Dr. Bercovitz nor his message regarding his Far Eastern "Hawaiian Island."

### Spice of Life

Life cannot be a bowl of cherries, there's always the spice of life.

During this flying trip to Hainan Island, I had an experience which was the spice of my life. I shall never forget its bitterness. It was like this: Just before departing from Taihoku, I ordered an apple pie from the famous confectionery, the Morinaga Sweet Shop, which was neatly wrapped for the airplane trip to Hainan Island. During the course of the flight, I handled the package with much care, and upon arrival at the Hainan Island Hotel, I placed it carefully on a marble table in the corner of the room shaded from the scorching heat. Returning from the American Presbyterian Hospital, I ordered a bottle of cold cider from the hotel servant, a plate and fork

and knife. With these I returned to my room ready for the treat. One must realize that good food and fresh water are luxuries which cannot be had at any cost. A piece of pie... no one would dream that it could be had in Hoihow. In unwrapping the pie, I noticed that the package was slightly ruffled due to handling on the airplane and in carrying it to the hotel. I hastily undid the string and unfolded the paper. When the pie became visible... I let out several phrases in English that no one in the hotel could understand (thank goodness!) and I was raging mad. What was once my delicious, dream pie, was covered with small red ants.

Evidently, they had sensed the presence of the pie in the room by smell and worked themselves up to the table and found their way into the pie through a space caused by the ruffling of the wrapping. Several of the maids heard my swearing and came up to see what had happened to me. When they entered the room and saw me standing in despair they rudely laughed. One of them took a paper fan and fanned some of the ants off the pie. In such a way, part of the precious pie was salvaged and sharing what was left with the three maids, I ate the pie... but the vision of the red ants crawling all over the pie remained in my mind and all the tantalizing effect of the pie was gone. And it



Street scene in Hoihow showing Chinese bringing in sugar cane to sell



will be a long long time before I'll ever forget the pie incident at Hoihow.

Just before dinner, one of the maids came and notified me that the bath was ready. This pleased me very much for the heat and dust of the island made me feel dirty and heavy with dust. I asked her to lead the way and I followed. On the second floor an American-styled bath had been properly prepared for me and as I was about to enter, I halted and stared at the water inside of the tub. It was brown and at the bottom could be seen a thin layer of dirt. I called back the maid and asked her in Japanese to the effect: "what the matter with this water?" She looked at me pitifully and replied in Japanese: "This water is from the river. It is boiled and brought into the bath-tub in large five-gallon tins. It is the only kind of water that can be had here. Everybody bathes in the same kind of water, if they want a bath." In other words, it was a plain case of "take it or leave it!" I took the bath.

After the bath, I slipped into a yukata (a Japanese lounging kimono) and joined many other hotel patrons in the dining room for supper. The food is hardly worth describing, all I could say is, I'm surprised at myself for having been able to consume it. Most of the patrons were connected in some way or other with the military. The chief topic of conversation was the experience had by an individual who told how he was shot at by a bandit near the city, and had it not been for the speed of his auto, he would have been overtaken, robbed and probably killed. He explained that these bandits, formerly soldiers of the Nationalist army, were equipped with powerful guns, some even possessed machine-guns, but they were usually poor marksmen.

When the group disbanded and returned to their rooms, I had three of the maids around me. They were all around twenty, not much older. I asked them where they were from. The first girl was named Teruko Kiyoshima from Kanagawa near Tokyo; the second girl was Tamio Uyematsu from Shizuoka in Central Japan; and the third attractive girl was Kaoru Sato from Kumamoto-ken in Kyushu, South Japan. Imagine, running into three beautiful girls in this infernal place, hot, filthy, lonely and dangerous. When I asked Miss Uyematsu why she had come here to work, her answer was: "It takes more than mere numbers of armed men to win a moral war. Although we girls do not share the glory of the military, I am sure that our insignificant part is important and cannot be under-estimated. I wanted to do something to participate in the present struggle for liberating the people of China from exploitation by selfish, capitalistic, Chinese war-lords. I think I am fortunate to be here so near the soldiers and the front."

An hour or so later, while I was writing post cards in my room, one of the girls came in and told me that Captain Maeda of the Imperial Navy wishes to see me in the banquet room of the hotel immediately. I quickly changed into some decent clothes and dashed down to see the Captain... completely ignorant of what might be in store for me.

### Don't Under-estimate Hainan Island!

When I entered the banquet room, I discovered it to be a Japanese room, tatami (fiber matting) floor, low tables, and guests sitting on the tatami with legs crossed in front of them. The table was literally covered with empty dishes and beer bottles. The banquet was over, the guests had left, Captain Maeda was seated with several follow officers emptying the last few bottles of beer that were left over. After the usual formality of salutations, Captain Maeda asked me to sit down and join him in a drink. I sat beside him and meekly refused the drink.

"What, a newspaperman that doesn't drink?" he exclaimed in surprised tone.

"I don't drink," I repeated politely as I could.

"Why?" he asked almost in a shout.

And I explained that during my school days, prohibition of intoxicating liquors and education in schools along that line was enforced. Consequently, a great many young people of my age in America are absolute abstainers. The Captain looked bewildered.



Another busy street scene in Hoihow

Finally, he nodded his head and said that it might not be a bad idea at that, although newspapermen should be excluded by law from being an abstainer.

"How old are you?" he asked suddenly.

"Twenty-six, but according to the Japanese way of counting, I'm supposed to be twenty-seven," I replied.

"You're rather young, aren't you?"

"Yes, rather..." I replied.

After taking another sip from his glass, he asked: "How are people in the United States taking this conflict?"

In answer, I spoke very frankly, explaining that because people were not fully informed as to the origin of the hostilities, their sympathy was for the under-dog, and, influenced by propaganda, they believed that the struggle had a racial issue... that the American people on the whole were very much against the Japanese militarists. However, there are groups of Americans in the intellectual class who understand the underlying causes and Japan's fundamental aims. But they are in such a small minority that their views are hardly heard or are significant as far as the masses are concerned.

"There's a great deal of truth in what you say, for I have encountered many Americans myself in China who have expressed their belief in Japan's unselfish motives," Captain Maeda was speaking in a deeper tone of voice. He then asked, "What was your first impression of Hainan Island?"

"It seems to be that this island has long been ignored and the Japanese are undertaking a tremendous task in mopping up the guerrilla bands, to develop the country, rebuild cities, and make this place a fit place to live. Just how the Japanese are going about it and what is their ultimate goal, I haven't learned yet," I answered as honestly as I could.

The Captain, whose face had already turned quite rosy as an effect of the beer, raised another glass to his mouth and drank it down. And then, as if he had been waiting for me to make just such an admission, he pounced upon me verbally and without any tact.

"In the first place," he started out, "what do you expect to learn anywhere overnight? You made a mistake in coming here at all if you intended to stay only one night and grasp the significance of developments taking place here and what is being done as a foundation for a greater Hainan Island in the near future. You have insulted and belittled Hainan Island and our work. You should not have come at all, unless you intended to stay here and really study conditions here for at least a week. Do you know that this island, which is almost as large as Formosa, is one of the most important settlements under Japanese occupation in all China?"

The naval captain was very much irritated over my short visit which in his opinion was a direct insult to the island and naval



activities here. He was highly excited as he began to lecture me concerning some facts which I should note before departing. But I realized that the beer had something to do with his high and boisterous voice. And then, too, I confess that I had belittled the island. I felt guilty and I had nothing to say in spite of the rude manner in which Captain Maeda spoke to me. I deserved the preaching.

"Now, just listen and I'll help you to understand some interesting facts concerning Hainan Island," Captain Maeda continued, "In the old days, hundreds of years ago, Hainan Island was one of two places where the Emperor sent his political prisoners into exile, the other place being across the hot desert in Sinkiang Province. Therefore, this island used to be what is to-day, America's Devil Island, Alcatraz in San Francisco Bay. Under the regime of Dr. Sun Yat-sen, some progress and development was made in encouraging industrial and agricultural enterprises. However, this was short-lived for in 1926, Chinese-Communists invaded the island and destroyed all industrial and even agricultural developments as capitalistic enterprises. All the jute mills, sugar plantations, and numerous factories were completely destroyed. Thus at the time of the Japanese occupation of the island, the country was barren, cities were stagnating, and the population was decreasing as people were migrating back to the mainland where there was less exploitation by corrupt politicians who had been sent by the Kuomintang Government to "squeeze" a living out of the poor island.

"The world has yet to learn a great deal about Hainan Island. The island is rich in natural resources, plenty of water power and mineral ores; climate is ideal for large scale farming, three crops of rice each year; and migration will be encouraged. In a short time, Hainan Island will be the second Formosa! Nothing... nothing can stop what is going to happen here."

He spoke with such determined conviction that I could not help but believe him and have all the faith in what he predicted. Yet, from within my cranium somewhere, a question rose and I asked Captain Maeda: "But what of the hostile guerilla bands, can you bring them under control? After all, if they are not rounded up, they will destroy each construction and kill innocent civilians who favor the development and participate in bringing new life to the abandoned island."

Laying his beer glass on the table, the captain rested his elbow on the table and resumed his lecture:

"The guerillas and bandits are no problem to us. In the first place, the Chinese and the native aborigines never got along very amicably; the shrewd Chinese from the mainland were known to cheat the innocent aborigines and since the entry of Japanese to Hainan Island, the aborigines favor the Japanese in both social and business intercourse. As a result, only those Chinese living in the cities and in good standing with the Japanese are recognized as worthy of the aborigines' friendship. As for the guerrilla bands, they must have food and consistent supply of arms and munitions to carry on their mischievous banditry. They can obtain food only when they rob the innocent farmer or civilian. But, soon their supply of munitions will be gone. They will have to either surrender or forsake their bandit career for honest living among the people and work for a living. Unlike the situation on the mainland, guerilla bands have no way to keep in contact with the headquarters of provincial army headquarters, nor can they be supplied with food and arms. Therefore, they are really a minor factor as obstructors of progress here."

Captain Maeda's impromptu lecture lasted for over an hour. In conclusion, I remember, he said: "The next time you come to Hainan Island for a visit which is shorter than a week's stay, I'll have you deported. The idea... of a newspaperman coming to this all-important island for an overnight visit. Why, in such a brief visit, you can't even scratch the surface of what is being done here. You have insulted us all. Don't do it again! And, remember, don't ever underestimate the importance of Hainan Island. It is going to be the second paradise off the coast of China, and maybe even better than Formosa someday!"

Far into the night, I sat in my room thinking over the things that Captain Maeda had disclosed to me. My conscience bid me to stay here for several more days. But, after all, Rear-Admiral Fukuda at Taihoku had arranged for me to return on the same plane that I came on and besides, my itinerary to South China via Amoy and Swatow on another navy seaplane was already arranged.

Early the following morning, I walked the streets of Hoihow, for I had time before going to the airport to board the Douglas

DC-2 for return flight to Formosa. I noticed the women dominated the street scene. They were coolies going to work. Men remained at home to live a life of ease; when the gambling parlors opened, they would desert their home to gamble their time and money away. At the river, I saw the fishermen, assisted by their young boys, fishing in primitive fashion. The small wooden boats have a bamboo derrick on which is a bamboo lever, on one side is a fish net spread out by four pieces of long bamboo poles, on the opposite side of the lever is a large stone to balance the fish net. The fish net is lowered into the water and after a short time the stone weight is pulled down into the boat which raises the fish net with all the catch inside. It is a pretty primitive method of catching fish but they find that it is effective and produces prosperous results... when there are fish in the river.

One of the features of Hainan Island is that the women here do not cut their jet black hair. They keep it long and the braided hair is left hanging down their back. It is very becoming even if they are coolies with faces dark as a Mexicans; at least, it is feminine. When I returned to the hotel, one of the girls had prepared a Japanese lunch for me to eat on the plane. It was neatly wrapped in bamboo-paper. I asked what was inside. She said the only thing that can be made in the form of a lunch here in Hainan Island: is balled rice with pickled plum inside and the whole wrapped in sea-weed. It'll keep my stomach full until I get to Taihoku, she said. And that was very sweet of her.

When the plane took off for Taihoku, Captain Maeda's verbal scolding in form of a lecture on the island still occupied my mind... someday, I shall return and see the miracles as forecast by the courageous Japanese naval officer.

## Salt in Szechuen

Since the expansion of the war area into the northern and coastal provinces, which formerly supplied 80 per cent of China's total salt production, Szechuen Province has become the most important source of salt for China's millions. More than 130,000,000 people, it is estimated, are dependent upon Szechuen for this staple.

Szechuen produces more than 7,000,000 quintals of salt per annum. It has 23 salt fields, of which the three largest, representing 50 per cent of the total production, are located in one district.

Recently, the Chinese Government, in order to meet the demand for salt, introduced newer and more scientific methods into this area whereby the monthly production has already been increased from 280,158 quintals to 486,000 quintals. The annual production of these fields is valued at \$40,000,000.

In 1937 the salt produced from all fields in Szechuen amounted to 7,048,598.11 quintals, of which four and a half million came from the first three fields. Half of the total yearly output is marketed in the adjoining provinces of Hunan and Hupeh, which were supplied with the bulk of their salt from the Hwai River region before the war.

Although all the large salt fields are located in the southern part of Szechuen, no less than ten fields may be found in the northern area, which produced a total of 1,772,202.76 quintals of salt in 1937. Among the bigger northern fields may be mentioned the Nanliang and Shihhung fields, each of which produced 335,932.64 and 330,432.75 quintals respectively in 1937. A large stock of reserve salt is stored in North Szechuen.

As the situation now stands, the annual production of 7,000,000 quintals will be insufficient to meet the demands of 130,000,000 people, at an annual quota of eight kilogrammes for each person. Accordingly, last August, the Szechuen Salt Administration devised measures, whereby the annual production of the large fields would be increased by 2,500,000 quintals and two other fields to a minimum of 500,000 quintals. The Administration has already invested \$2,600,000 in scientific equipment for the manufacture of salt in these fields.

In pre-war days, the nation depended upon several northern and coastal provinces for its salt supply. The salt was produced from sea water. Areas which were famous as salt suppliers include Liangwei in North Kiangsu, Sungkiang in South Kiangsu, Changlu in Hopei, Liangche in Chekiang, Huainan in Anhwei and some other coastal provinces. When all these, one after another became war areas, the supply of salt was greatly diminished. Now, the greatest part of China's salt comes from Szechuen, where it is obtained from salt wells.



# The Beet Sugar Industry in Manchuria\*

**I**n Manchuria sugar is manufactured entirely from sugar beets and this branch of industry was first introduced by Polish businessmen in 1909, when a sugar mill was built at Ashihho, in the suburbs of Harbin. The following year the Hulan Sugar Refinery was established at Machuankou, on the bank of the Sungari River, opposite Harbin.

The South Manchuria Railway Company, realizing the promising future which the beet sugar industry had before it, started experimental cultivation of sugar beets at the Kungchuling Agricultural Experimental Station in 1914. Satisfactory results were attained, and the following year, the S.M.R. planted sugar beets at its nurseries at Hsinking, Tiehling and Liaoyang, and also encouraged farmers in their cultivation. The yield was from two to four *kin* (one *kin* equals 1.32 lb.) per *tsubo* (six feet square) and it was found that the sugar content amounted to 18 per cent in the case of improved varieties. As the results were satisfactory enough to carry on beet sugar manufacturing on a commercial scale, the South Manchuria Sugar Manufacturing Company was founded in Mukden in 1917 with a capital of Y20,000,000.

In the meantime, the area planted with sugar beets increased to more than 100,000 *mu* (one *mu* is equal to 1,000 square meters), but such adverse factors as the ignorance of farmers regarding sugar beet cultivation, poor beet crops, and the heavy, unjust taxes imposed by the former Chinese militarist regime in Manchuria, hampered the development of the beet sugar industry. In order to replenish the shortage of raw material, the South Manchuria Sugar Manufacturing Company speculated in Java raw sugar, but failed and, in consequence, had to finally close down in 1928.

In North Manchuria the beet sugar industry developed somewhat owing to the protective railway rates of the former North Manchuria Railway and the good quality of sugar beets cultivated in that part of Manchuria. Up to the time of the advent of Manchoukuo mill operations were, however, carried on intermittently, and the results attained were far from satisfactory.

As the saying goes, "the index of the civilization of a country depends upon the amount of sugar consumed," the sugar consumption in Manchoukuo has increased yearly since the birth of the new State. In 1936, as much as 3,690,000 piculs (one picul equalling 132 lb.) of sugar were imported into Manchoukuo.

To meet the increasing demand for sugar, the Japan Sugar Trading Company bought the Ashihho Mill and founded the North Manchuria Sugar Manufacturing Company in Harbin in 1934, jointly with Polish businessmen, with a capital of Y2,000,000 fully paid-up. In December of the following year, the Manchuria Sugar Manufacturing Company was established in Mukden with a capital of Y10,000,000, of which one-half was paid up. It was promoted by concerns affiliated with the Japan Sugar Industry Union, and was incorporated under Japanese law as an investment company. Another concern, the Manchuria Chih Tang Company, Ltd., was separately established to engage in the manufacture and sale of sugar. The Manchuria Sugar Manufacturing Company owned all the shares in this company and virtually controlled its business. This investment company was re-incorporated under Manchoukuo law on November 1, 1937, in consequence of the abolition of Japanese extraterritoriality in Manchoukuo and the transfer of

administrative rights in the South Manchuria Railway Zone, and the Manchuria Chih Tang Company subsequently handed over all its business to the former concern in January, 1938, and was dissolved.

## The Manchuria Sugar Manufacturing Company

Cultivation of sugar beets is embodied in the Manchoukuo Five-Year Industrial Plan, enforced in 1937. The business plans of the Manchuria Sugar Manufacturing Company conform to the Government's five-year plan for increasing the output of sugar beets; and this company is conducting business under governmental control in accordance with the provisions of the Law for the Control of Important Industries in Manchoukuo. It is engaged chiefly in the manufacture of sugar from sugar beets, and carries on, in addition, the refining of Taiwan and Java raw sugar at its Mukden plant in order to meet a portion of the shortage of sugar supply in the country. The latter enterprise will be continued until Manchoukuo attains self-sufficiency in sugar. As a

subsidiary business, the company manufactures beet pulp by drying beet refuse, and sells it as fodder. It also manufactures alcohol from beet syrup, a by-product in the production of sugar.

Immediately after its establishment in 1935, the above company took over and improved the equipment of the former South Manchuria Sugar Manufacturing Company's mills at Mukden and Tiehling from Mr. Hatsutaro Akashi,† and started refining raw sugar at its Mukden plant in April, 1936. The re-opening of the Mukden mill, which had been left idle for almost a decade marked the first step towards the revival of the sugar industry in South Manchuria. In September of the same year, the company purchased the Hulan Sugar Refinery from the Government, repaired and

improved the equipment, and started operations in November, 1937. The company has since been contributing greatly towards the development of the sugar industry in both North and South Manchuria. The present productive capacities of the company's Mukden and Harbin mills are as follows:

### MUKDEN MILL

|                                |                                                        |                 |
|--------------------------------|--------------------------------------------------------|-----------------|
| Production of beet sugar       | Daily (24 hrs.) capacity (handling raw material) .. .. | 600 metric tons |
|                                | Seasonal productive capacity ..                        | 170,000 piculs  |
| Refining of imported raw sugar | Daily capacity .. ..                                   | 100 metric tons |
|                                | Seasonal productive capacity ..                        | 350,000 piculs  |

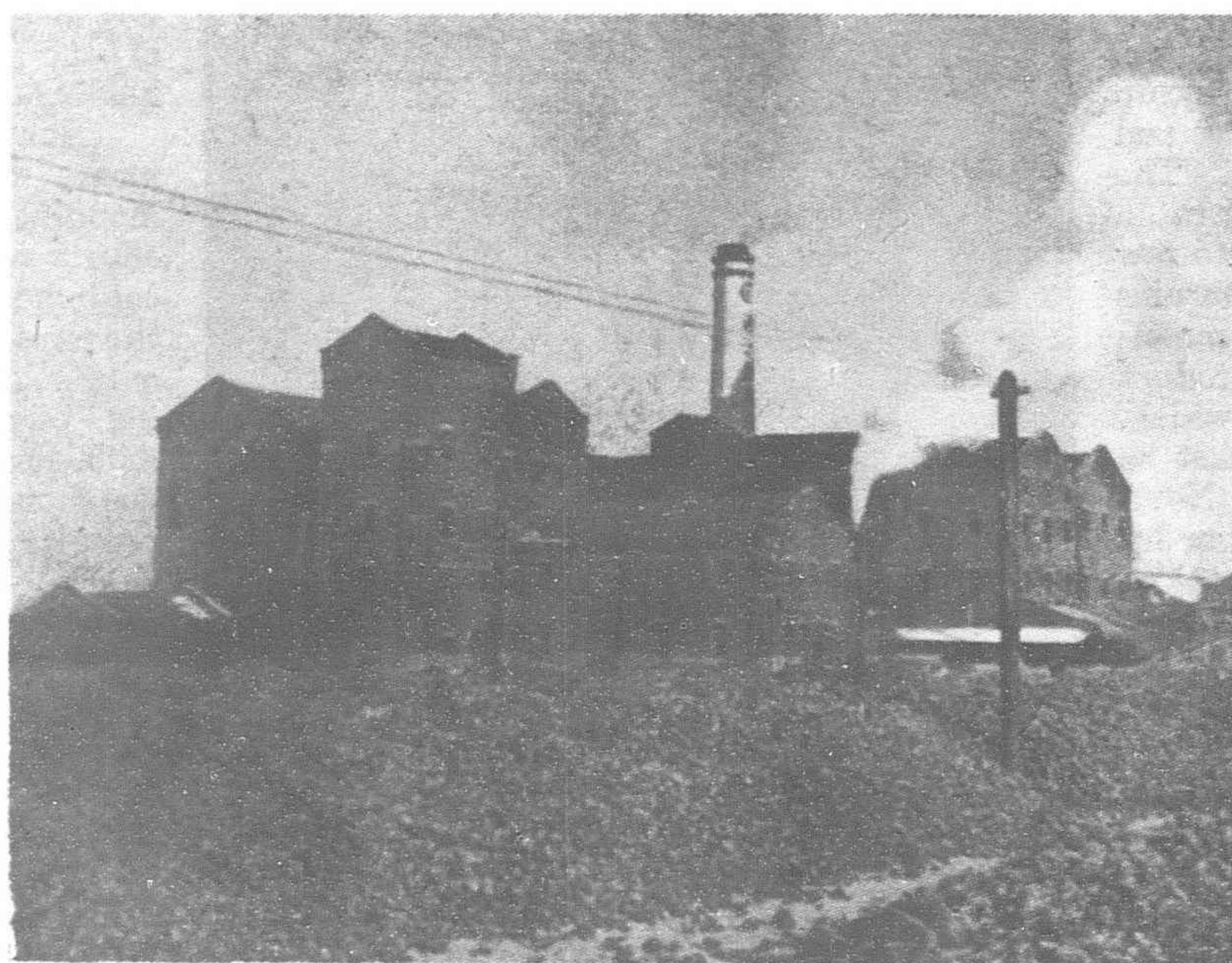
### HARBIN MILL

|                          |                                 |                 |
|--------------------------|---------------------------------|-----------------|
| Productive of beet sugar | Daily capacity .. ..            | 500 metric tons |
|                          | Seasonal productive capacity .. | 160,000 piculs  |

In addition to these plants, a new mill has been under construction at Hsinking since May, 1938, and is expected to start

\* Contemporary Manchuria.

† Mr. Akashi, who is at present president of the Manchuria Sugar Manufacturing Company, purchased the Mukden and Tiehling mills himself before the Manchuria Sugar Manufacturing Company took over the equipment of these mills, and took the initiative in reviving the Manchurian sugar industry.



The Mukden mill of the Manchurian Sugar Manufacturing Company with piles of sugar beets seen in foreground



operations in October, this year. The machinery installed at the company's mill at Tiehling will be moved to this new mill, which will be provided with additional new equipment. The Hsinking plant will have a daily capacity of 600 metric tons (sugar beets) and a seasonal sugar productive capacity of 170,000 piculs.

Following completion of the Hsinking plant, the company plans to construct additional mills at suitable sites with a view to making Manchoukuo self-sufficient in sugar.

The process employed in the manufacture of sugar at the above plants, the equipments whereof are generally the same, will be briefly explained. Sugar beets, after their leaves, stems and root-caps have been removed at the farms, are washed clean by sending them through a trough leading to the interior of the mill, where they are weighed in fixed amounts on automatic scales, and then taken to a cutting machine. They are next placed in a saturation tank following which they are conveyed to a pulp removal machine to remove the fibers. Following this process, milk of lime is added and the mixture is heated and then placed in a tub containing carbonic acid gas. The mixture is next heated and boiled several times and the syrup thus formed is condensed in an evaporator. The impurities contained in the syrup are completely removed by heating and filtering the syrup several times. The syrup thus purified is placed in a crystallizing boiler and changed into raw sugar. As the raw sugar contains honey, the latter is removed by means of a honey separator, and the product remaining becomes No. 1 sugar, which, after drying, is sent to the market as sugar. Pure white, refined sugar (No. 2 sugar) is produced from No. 1 sugar by the application of further crystallization, filtration, and honey separation processes.

The products manufactured by the Manchuria Sugar Manufacturing Company were first put on the market in June, 1936, and are now being sold in all parts of Manchoukuo. They are:

- |                |                                                                                             |
|----------------|---------------------------------------------------------------------------------------------|
| Sugar ..       | (1) Refined sugar in 135 <i>chin</i> (one <i>chin</i> equals $\frac{1}{2}$ kg.) gunny sacks |
|                | (2) Crystallized sugar in 135 <i>chin</i> gunny sacks and five pound bags                   |
|                | (3) Cube sugar in boxes, each box containing 25 one pound packages                          |
| By-products .. | (1) Alcohol in 1 to (3.9703 gallons) cans                                                   |
|                | (2) Beet pulp (fodder for milch cows, hogs and poultry) in 100 <i>chin</i> bales            |

The Manchuria Sugar Manufacturing Company's business plans for this year call for the production of 430,000 piculs of beet sugar as compared with 200,000 piculs last year, and the refining of Taiwan raw sugar to the amount of 300,000 piculs as against 200,000 piculs in 1938. This year's yield of sugar beets in the Mukden district is estimated at 150,000,000 *chin*; in the Hsinking district, 85,800,000 *chin*; and in the Harbin district, 128,500,000 *chin*, or a total of 364,300,000 *chin*. Assuming that sugar beet contains 12 per cent sugar, it is estimated that 430,000 piculs (one picul equals 100 *chin*) of sugar can be obtained from the total sugar beet crop.

The company plans to establish new mills at Suihua, Pinkiang Province, and at Kirin, and to increase the daily capacities (handling raw material) of the Mukden and Hsinking plants from 600 metric tons to 800 metric tons in the near future.

Since the root-caps, stems and leaves of sugar beets and beet pulp serve as excellent fodder and since manure can be obtained from livestock and used in the cultivation of sugar beets, the Manchuria Sugar Manufacturing Company, in co-operation with the Manchoukuo Department of Industry, is actively encouraging the raising of livestock in order to promote sugar beet cultivation. The company is also contemplating raising milch cows in order to produce butter, condensed milk and other milk products.

## The North Manchuria Sugar Manufacturing Company

The beet sugar industry in Manchuria was first started in North Manchuria in 1907 when the Ashihho Sugar Manufacturing Company was established with a capital of 1,000,000 roubles, by two Poles, Mr. Grotowski and Mr. Zettowski. The company constructed a mill at Ashihho, which commenced operations simultaneously with its completion in December, 1908. Its business, however, did not come up to expectations, and the company was taken over by the Sungari Flour Milling Company in 1923. The National City Bank of New York subsequently foreclosed a mortgage on the concern and closed the plant.

Following the inception of Manchoukuo, Zikman & Company (Polish nationality), a sugar trading concern, which had in the meantime leased the mill from the National City Bank, founded the North Manchuria Sugar Manufacturing Company with a ¥2,000,000 capital in April, 1934, jointly with Mr. Kyuemon Takatsu, Japanese sugar trader. With the establishment of this new concern, the National City Bank, which had previously invested large sums of money in the Ashihho mill and had met with much difficulty in disposing of the plant, relinquished its capital holdings.

Simultaneously with its establishment, the North Manchuria Sugar Manufacturing Company devoted its efforts to the improvement of the mill equipment and employees' residences, the expansion of the cane sugar refinery, cube sugar and candy sugar manufacturing plants and facilities for storing molasses, and the erection of new warehouses. Making full use of the peculiar characteristics of North Manchuria, which were proven highly favorable for agriculture, especially the

cultivation of sugar beets in which much success had been attained, the company endeavored to improve its business. At the same time, it systematized agriculture in a cold climate, helped to increase and stabilize the income of farmers, and exerted efforts to contribute to the cultural development of the rural communities.

However, owing to the reduction of railway freight rates accompanying the unification of the management of State railways throughout Manchoukuo, and to the slump in the prices of Java sugar, the company was hard hit by foreign sugar. On the other hand, the purchasing price of sugar beets rose parallel with the rise in the market price of soya beans, the leading agricultural product of Manchuria, and the business condition of the company at the time of its establishment was far from satisfactory.

However, as the domestic demand for sugar has rapidly increased since and the Government has established a definite policy anent sugar manufacturing enterprises in accordance with the Manchoukuo Five-Year Industrial Plan, it is expected that the company will not only recover its former losses but increased importance will be attached to its existence. The company's mill is capable of handling 400 metric tons of sugar beets in 24 hours and has a seasonal productive capacity of 100,000 piculs.

## Beet Sugar Cultivation Plans

Beet sugar manufacturing is an enterprise involving a continuous process from farming to manufacturing. The cultivation of beet sugar is of vital importance in the industrial system of the new State of Manchoukuo in that it will bring about reorganization of the agricultural system and the development of rural communities, as well as forming the basis of livestock farming. Herein also lies the reason for the Government in including beet sugar cultivation in the Five-Year Industrial Plan; and the Government, with the object of encouraging the cultivation of this product, is working out various plans. An outline of the plans scheduled for



The interior of a sugar crystallization chamber



enforcement by the Government and the Manchuria Sugar Manufacturing Company in and after 1938 is given below.

### Government Plans

(1) The Central Government will encourage the provincial governments concerned in the acquisition of areas allotted for the cultivation of sugar beets; the provincial governments will direct the hsien offices under their jurisdictions, and the hsien offices, the village assemblies within their jurisdictions; and the village assemblies, in co-operation with the agricultural employees of the Manchuria Sugar Manufacturing Company, will allot lands for sugar beet cultivation to farmers, and endeavor to bring the projected areas under cultivation.

(2) The Government will engage the services of some twenty experts on sugar beet cultivation, who will co-operate with the technical employees of the Manchuria Sugar Manufacturing Company in giving proper guidance to farmers in the cultivation of sugar beets.

(3) Model farms will be established by the Government at twenty different places in the Mukden district, while one hundred such farms under the joint management of the Government and the company will be founded in the Harbin district. In the Hsinking district, thirty experimental farms will be established under the management of the Kirin Provincial Government.

(4) The Government will give every assistance to beet cultivators in the extermination of insect pests. To obtain high grade seeds, seed farms will be established this year at the Kungchuling and Harbin Agricultural Experimental Stations.

(5) As many sugar beet experimental farms as possible will be established at farmers' training schools and public schools in order to popularize the cultivation of sugar beets.

### Manchuria Sugar Manufacturing Company Plans

The Manchuria Sugar Manufacturing Company, needless to say, attaches great importance to the cultivation of sugar beets and is according every possible facility to beet growers. It has raised the former purchasing price of Y7.25 per 1,000 *chin* to Y8.00, makes an advance payment of about Y20 per *tienti* (10,000 square meters) on lands cultivated with sugar beets, gives a subsidy of 50 sen per *mu* (1,000 square meters) in order to encourage the cultivation of this product, and defrays one-half of the costs of seeds and fertilizers. The company also assists the farmers in the extermination of blight and gives the following subsidies for the transportation of sugar beets:

| Distance<br>(Li or 500 meters) | Subsidy<br>(Sen) |
|--------------------------------|------------------|
| 15-20                          | 50               |
| 21-25                          | 65 (95)          |
| 26-30                          | 80 (100)         |
| 31-35                          | 95 (120)         |
| 36-40                          | 110 (130)        |
| 41-45                          | 125              |
| 46-50                          | 140              |
| 51-55                          | 150              |

Parenthesized figures are subsidies given in the Harbin district.

Since the development of the beet sugar industry depends in no small way upon the quality and supply of beet



Manchurian sugar kept in storage

with a view to attaining self-sufficiency in seeds. For this purpose, it plans to obtain seeds from the seed farms at the Harbin and Kungchuling Agricultural Experimental Stations, and manage seed farms of its own. These farms, covering a total area of some 700 hectares, will be established in the Hsinking and Harbin districts. As negotiations for the purchase of the prospective sites have already been started, it is expected that the greater part of the required seed supply will be met by 1941 if everything goes on smoothly according to plan.

The area cultivated with sugar beets in Manchuria at present covers 11,600 hectares and the number of farm households engaged in the cultivation of this product totals about 15,000. The beet-growing districts are:

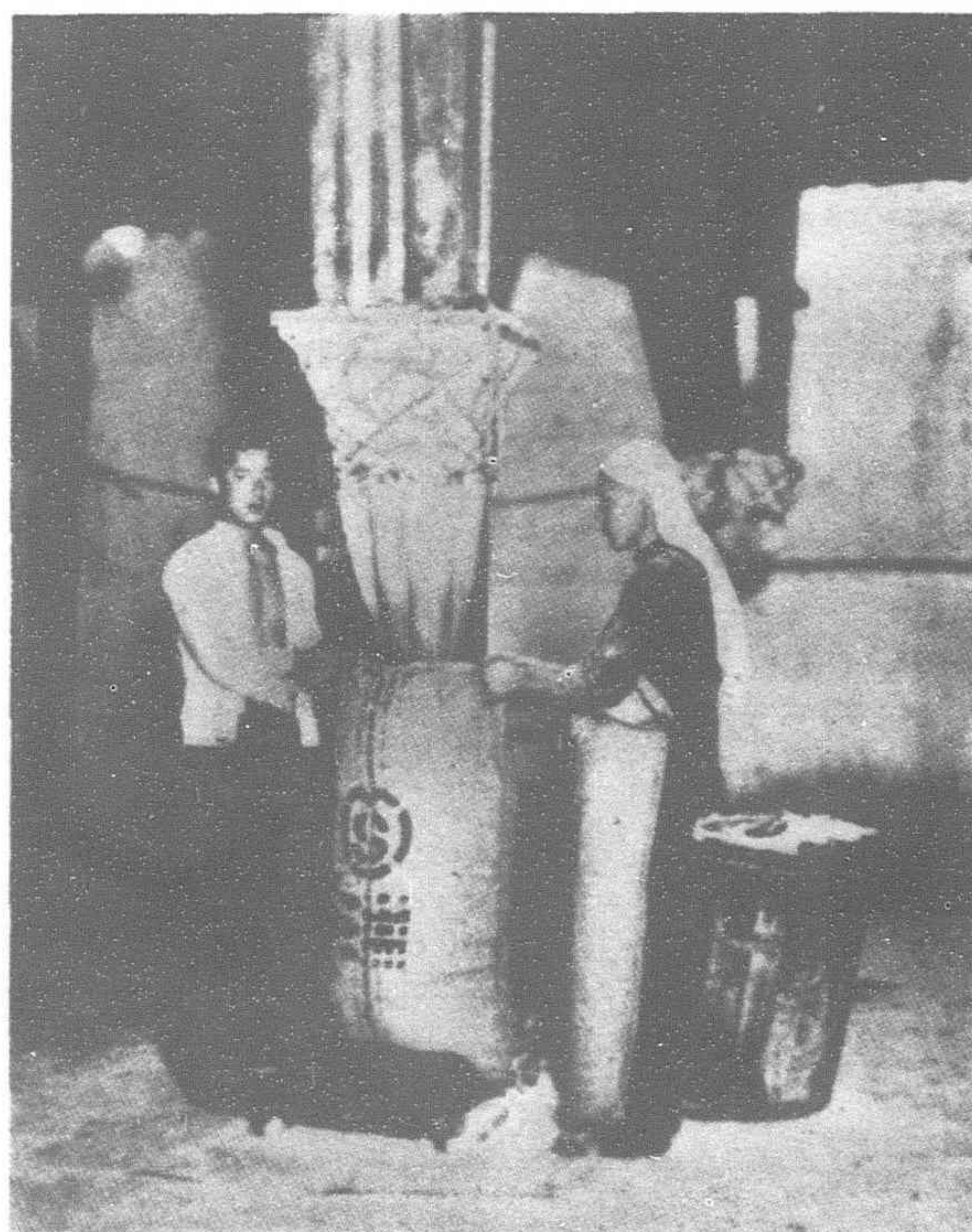
- (1) Mukden district (5,800 hectares)—Mukden, Shenyang-hsien, Hsinmin-hsien, Tiehling-hsien and Kaiyuan-hsien.
- (2) Harbin district (5,800 hectares)—Harbin, Shuancheng-hsien, Hulan-hsien, Payen-hsien and Suihua-hsien.

It is planned to cultivate 4,000 hectares of land in Changchun-hsien and Huaite-hsien, centering around the Hsinking mill, with sugar beets in the future.

The North Manchuria Sugar Manufacturing Company is likewise encouraging farmers to grow sugar beets and is giving them much assistance. Seeds specially imported from Poland are distributed gratis to farmers by this company.

### Importance of the Beet Sugar Industry

The beet sugar industry not only aims at the manufacture of a product indispensable to national life but is also an important basic industry in that the cultivation of sugar beets, the raw material for the production of sugar, serves fundamentally to improve the soil, reorganize the agricultural system, enlighten and advance agricultural knowledge and technique, and promote livestock farming. Because of this fact, the Japanese Government, not to mention various European and American countries, is according the beet sugar industry much protection and assistance, directly or indirectly, in order to promote its development. In Manchoukuo, too, the importance of the industry has come to be generally recognized in recent years. Especially in the economic construction of a new nation like Manchoukuo whose national policy is based on agriculture, the promotion of the



Sacking sugar



beet sugar industry is a matter of urgent necessity. The reasons for the importance of beet sugar cultivation from an agricultural standpoint will be outlined :

(1) Sugar beet is a plant which takes deep root, and thus breaks up the soil favorably. Moreover, the use of a large amount of fertilizer in the cultivation of this product improves the soil most economically, conserves the land, and makes it very fertile for the cultivation of other crops. In Manchuria the baneful effects of continuous farming without fertilization for many years have been increasingly felt with the passing of each year, and indications of decreased productivity of the soil, and of a gradual decline in the percentage of yields have now become marked. In order to ameliorate this situation, it is of urgent necessity to draw up far-reaching plans to encourage and propagate the cultivation of crops requiring much fertilizer, and to resuscitate rural economy. The cultivation of sugar beets is thus absolutely indispensable to the renovation of Manchurian agriculture.

(2) In order to make the rural communities in cold regions prosperous, the best way is to encourage and propagate livestock farming as their subsidiary occupation. As the root-caps, stems and leaves of sugar beets, and beet pulp are suitable for fodder, the raising of livestock will naturally be stimulated in districts where sugar beets are grown, and will not only prove a remunerative sideline to farmers, but will also help to increase the production of the much needed fertilizer, thereby contributing greatly to raising the fertility of the soil. It is of the utmost urgency to promote the development of the livestock industry parallel with the cultivation of sugar beets.

(3) As the sugar beet is a superior product, the income from this crop will increase comparatively more than that from other crops as the management in fertilization and cultivation improves. In consequence, the knowledge and technique of the farmers on farming will be gradually improved. The cultivation of sugar beets is thus the most effective way for changing primitive farming to rational, intensive farming methods.

For the reasons stated above, the cultivation of sugar beets will prove a great boon to farmers in Manchuria and it is possible to expect that it will bring prosperity to the rural communities.

Moreover, since the Manchuria Sugar Manufacturing Company decides upon the buying price of sugar beets before the spring sowing season, the income of the farmers will be stabilized in contrast to the violent fluctuations in the market-prices of staple products throughout the year. As the company also makes payments in advance for cultivation, this system greatly facilitates rural finance. Among the native farmers, there are many who are not yet used to new crops such as sugar beet, and are rather inclined to dislike this product. However, as better results are gradually obtained in the future, this tendency will be completely changed, and it is expected that sugar beets will become an important product indispensable to Manchurian agriculture.

In conclusion, the importance of the beet sugar industry from economic and financial standpoints will be treated. Sugar imports into Manchoukuo amounted to 1,620,000 piculs in 1937 and to 1,760,000 piculs in 1938. Estimating that one picul of sugar costs Y10, it means that Manchoukuo imported foreign sugar to the value of Y17,600,000 in 1938. On the other hand, the domestic production of beet sugar amounted to 104,000 piculs during the 1936-37 season, and to 170,000 piculs the following season, which is less than one one-tenth of the total consumption in the country.

Both the Government and the sugar manufacturing companies are exerting every effort to promote the cultivation of sugar beets as well as planning to expand the sugar mills. Under the present plans, the annual beet sugar production of the Manchuria Sugar Manufacturing Company will amount to 700,000 piculs by 1941, the last year of the Five-Year Industrial Plan. Assuming that the productive capacity of the North Manchuria Sugar Manufacturing Company's Ashihho mill will be increased to 100,000 piculs by 1941, the total domestic production will be raised to 800,000 piculs. It is estimated that the sugar consumption in Manchuria in 1942 will amount to 2,700,000 piculs. This will mean that only one-third of this amount will be met by domestic sugar. Considering that the development of the beet sugar industry is not an easy matter and that the domestic consumption of sugar is ever increasing, it will take much time before Manchoukuo will be able to attain self-sufficiency in sugar. Therefore the formulation of positive plans to develop the beet sugar industry is of the utmost urgency.

## Civil Aviation in Japan

(Continued from page 499)

for the development of civil aviation in Japan requires the institution of a fundamental measure for better and more thorough training of more future aviators. To carry out this part of the program, the Government has established central and local institutes which are under the direct management of the Board of Aviation. In these institutions, young men will be trained thoroughly as pilots and mechanics, the number of students being restricted to the actual need for the year, so there will be no graduates out of work. At the same time, a fixed number of civilian aviators and mechanics will be held in reserve for times of emergency.

The local training institutes will be established at five important points in Japan proper during the 1938-39 fiscal year and in five more places in the 1939-40 fiscal year. Additional schools will be established as needed. Students will be trained under courses of study similar to those in the class A technical schools. They will be graduated either as pilots, mechanics or technicians, to enter directly into commercial aviation or the aircraft manufacturing industry and as a reserve force for national defence.

The Central Institute for Aviators will be established at Matsudo, Chiba Prefecture, for the purpose of training professional aviators for immediate service with regular air transportation companies, and also for training instructors for the local institutes. Fifty graduates of the local institutes will be selected annually to finish their training in the central institute. The institute will begin to function normally in 1940, following two years of preparation. As it is self-evident that several years will pass before the first students are graduated from this institute, training will continue in existing organs to supply the immediate need for aviation personnel.

### Extension of Aviation Facilities

Proper airport equipment, mechanical flying aids and safety devices naturally are indispensable requisites for the smooth opera-

tion of regular air lines. For instance, the improvement of weather observation and radio facilities is most important for the enhancement of safety and guiding pilots during stormy weather. The rôle played by the wireless in aviation is far more important than most people imagine. To enable aviators to follow an accurate course safely through darkness, rain and fog, when visibility is reduced to inches, sensitive gauges and indicators in the planes, radio beams, light beacons along the route and special devices to facilitate blind landings must work together with hairline precision. The full installation of such equipment is indispensable. As night flying is essential to perfect the system of speedy transportation and communication, all routes to be covered at night must have beacons along the way as well as neon landmarks, signs to mark obstacles, lighted weather-vanes, searchlights and well-illuminated airports. Emergency landing fields between regular airports also are necessary.

For the installation of these facilities, the Government has exercised all possible efforts in recent years, and such equipment on the main air routes in Japan proper now are nearly adequate, so far as the present need is concerned. However, such equipment is not sufficient to cope with the situation created by the speeding up of flight and the appearance of huge transport planes. Several landing fields more than 1,000 meters in length are to be prepared for large passenger planes. Regular airports are to be extended in area to 300,000 tsubo.\* The Government this year began the work of enlarging Gannosu Airport at Fukuoka, which serves as a hub for flights connecting Japan, Korea, Manchoukuo and China. At the same time, the improvement of the Haneda International Airport in Tokyo and the construction of the new Sunamachi aerodrome are being carried on. Authorities also are contemplating the construction of a number of new flying fields.

\*A Japanese unit of area equivalent to 36 square feet.



# Railway Improvement in Tokyo

By W. HARVEY CLARKE, Jr.

THE work of improving railway facilities in Tokyo, as the chief rail center of Japan and undertaken by the Tokyo District Improvement Office of the Japanese Ministry of Railways, includes the following five developmental projects now under way:

- (1) Tokaido Main Line Improvement Work
- (2) Sobu Line                   "           "
- (3) Chuo Line                 "           "
- (4) Construction of a Power Receiving Station in the Musashisakai Substation Zone
- (5) Subway construction in the vicinity of Shimbashi by request of the Tokyo Highspeed Railway Company.

All the above-listed undertakings aim at expanding transportation facilities in the metropolitan area and suburbs of Tokyo to meet the needs of a rapidly growing population, which at the present time is about six million.

The urgent necessity of increasing the capacity of the Tokyo Central Station, the gateway to the capital and heart of the Empire's railway system, had been stressed for several years. In response to growing demand, the Ministry of Railways decided to improve the Tokaido Main Line, originating at Tokyo, at a total cost exceeding 20 million yen.

Interurban electric trains arrive and depart from Tokyo Station more than two thousand times daily, while regular electric trains come and go more than two hundred times. During the seasonal excursion periods many extra trains are added to the regular schedules, making the station too congested to accommodate passengers properly. The present improvement work, therefore, calls for construction of three elevated platforms, each 300 meters in length, and an additional platform exclusively for the use of freight trains. The work of the existing freight depot at Tokyo Station will be transferred to the outlying Shinagawa Station, and in turn, the freight at present handled at

Shinagawa will be marshaled at the new Tsurumi Station outside of Tokyo in the direction of Yokohama.

A reinforced concrete entrance structure will be erected on the Yaesuguchi side (or back side) of Tokyo Station in order to double the passenger-contacting capacity of the station.

At present there are four double tracks running between Tokyo and Shinagawa, of which two are used for regular electric trains and the Tokyo-Yokosuka Line, and two for the Yamanote Beltline and the Keihin (Tokyo-Yokohama) Interurban trains.

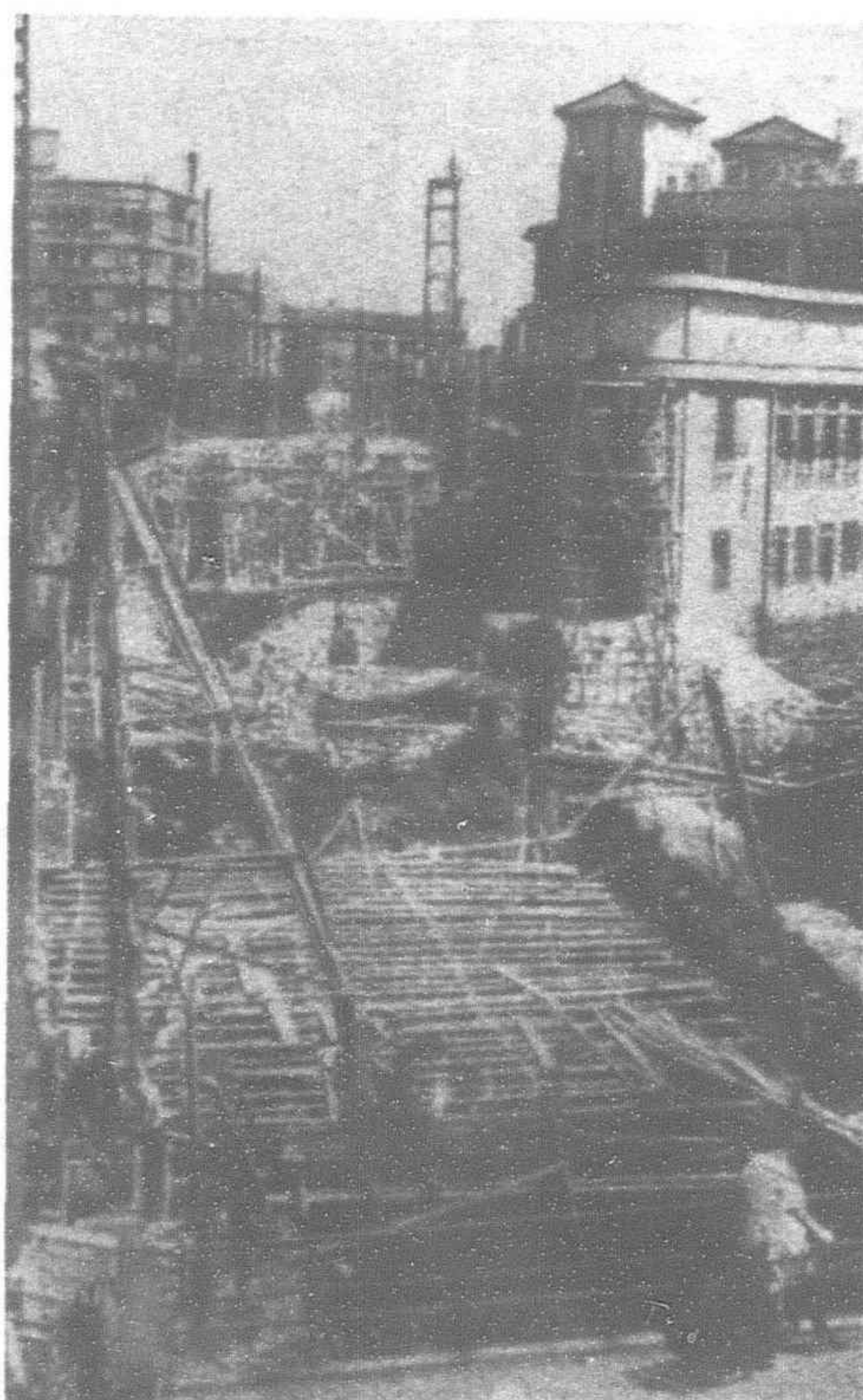
During rush hours especially, all incoming and outgoing trains are packed to more than their normal capacity, often carrying more than twice as many passengers as their capacity should permit.

With the addition of a double-track elevated structure under the present improvement work, the number of tracks between Tokyo and Shinagawa will be increased to six. Of these, two will be for the exclusive use of regular trains. The remaining four will be for the beltline and the Tokyo-Yokohama and Tokyo-Yokosuka lines.

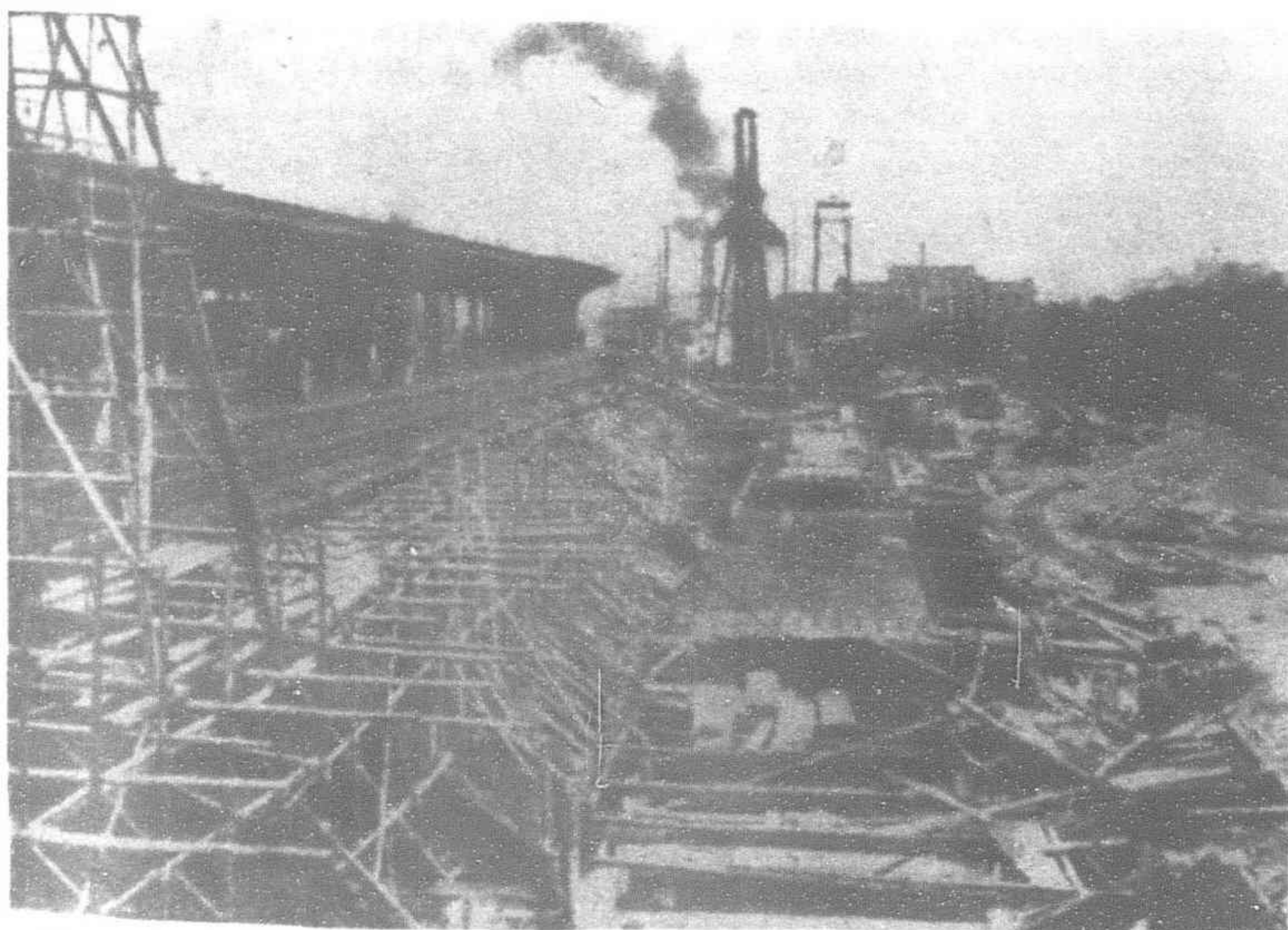
To connect the elevated structures at Kajibashi and at the Shiodome Freight Station, a concrete-slab bridge, covering a total length of 1.8 kilometers, will be constructed. At the Yurakucho Station a new platform for electric cars is being erected, with entrances and exits on both the north and south sides of the station.

A new platform will be built for regular trains at the Shimbashi Station and the existing platform will be used entirely for electric cars. South of Shimbashi at the Hamamatsucho and Tamachi stations an elevated structure, 96 meters long, is under construction.

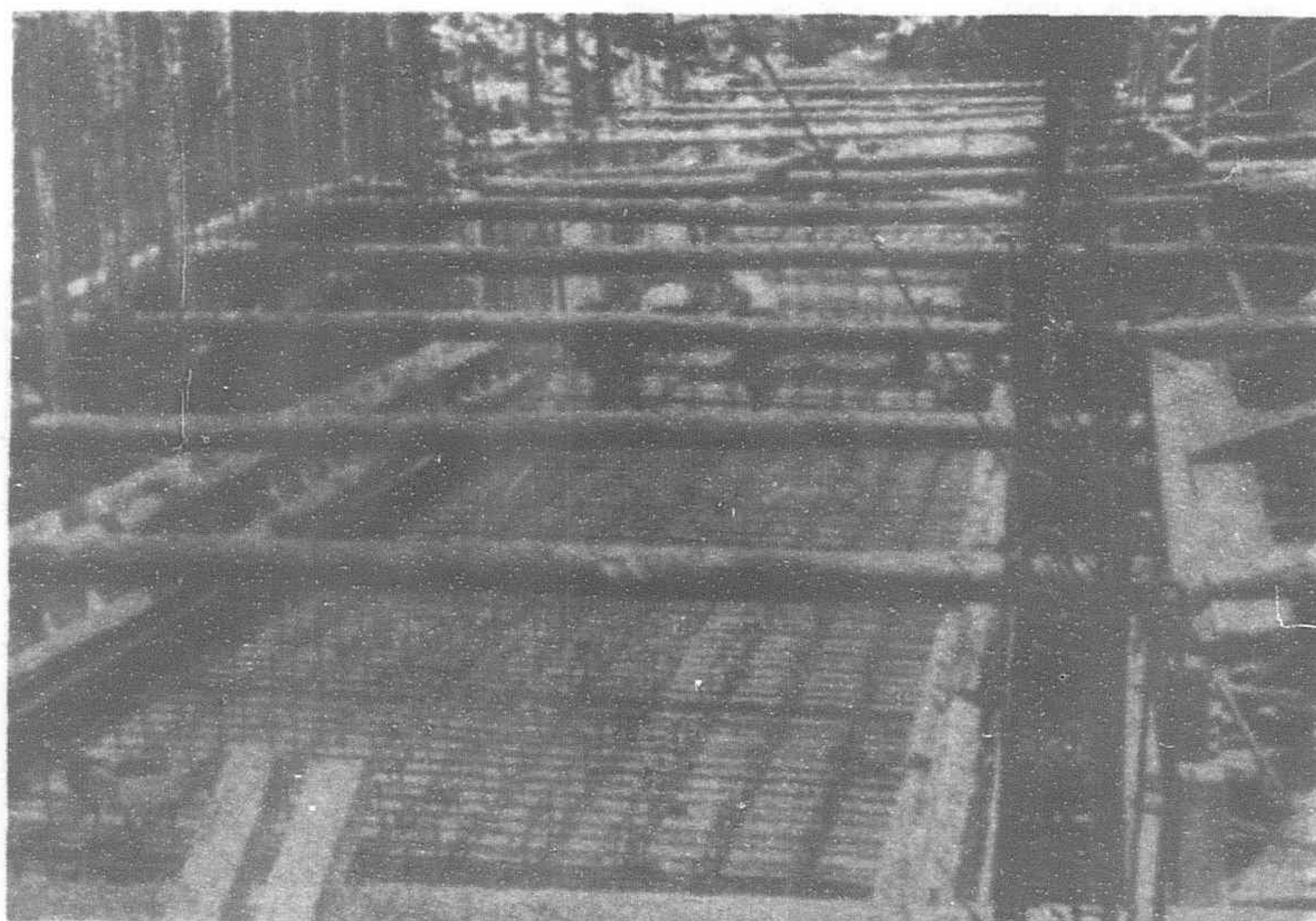
At the Shinagawa Station new platforms will be erected for passengers, and in the yards a large freight marshaling depot to cover an area of 80,000 *tsubo* (one *tsubo* equaling six feet square) is being laid out according to plans for the Tokyo railway improvement project.



New double-tracking under construction along the Tokaido Main Line between Tokyo Central and Shinagawa Stations, as seen from the Uchiyamashita Bridge (near the Imperial Hotel), looking towards Yurakucho Station



View of excavation at Tokyo Central Station, where underground passways will facilitate the moving of freight by truck



Close-up of work on underground freight passway at Tokyo Central Station, showing iron foundation beams and U-shaped parts being framed into the structure

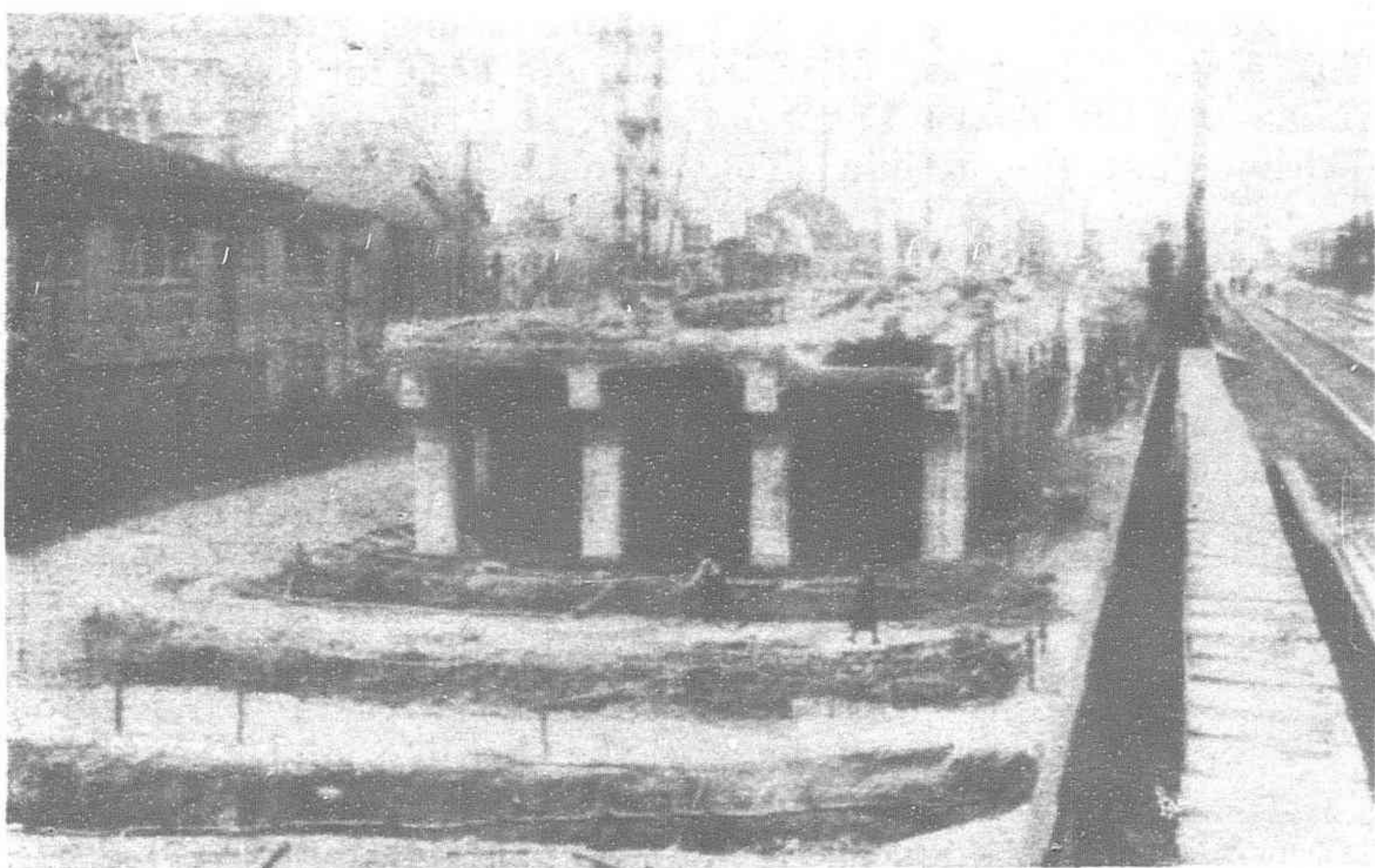


### Sobu Line Improved

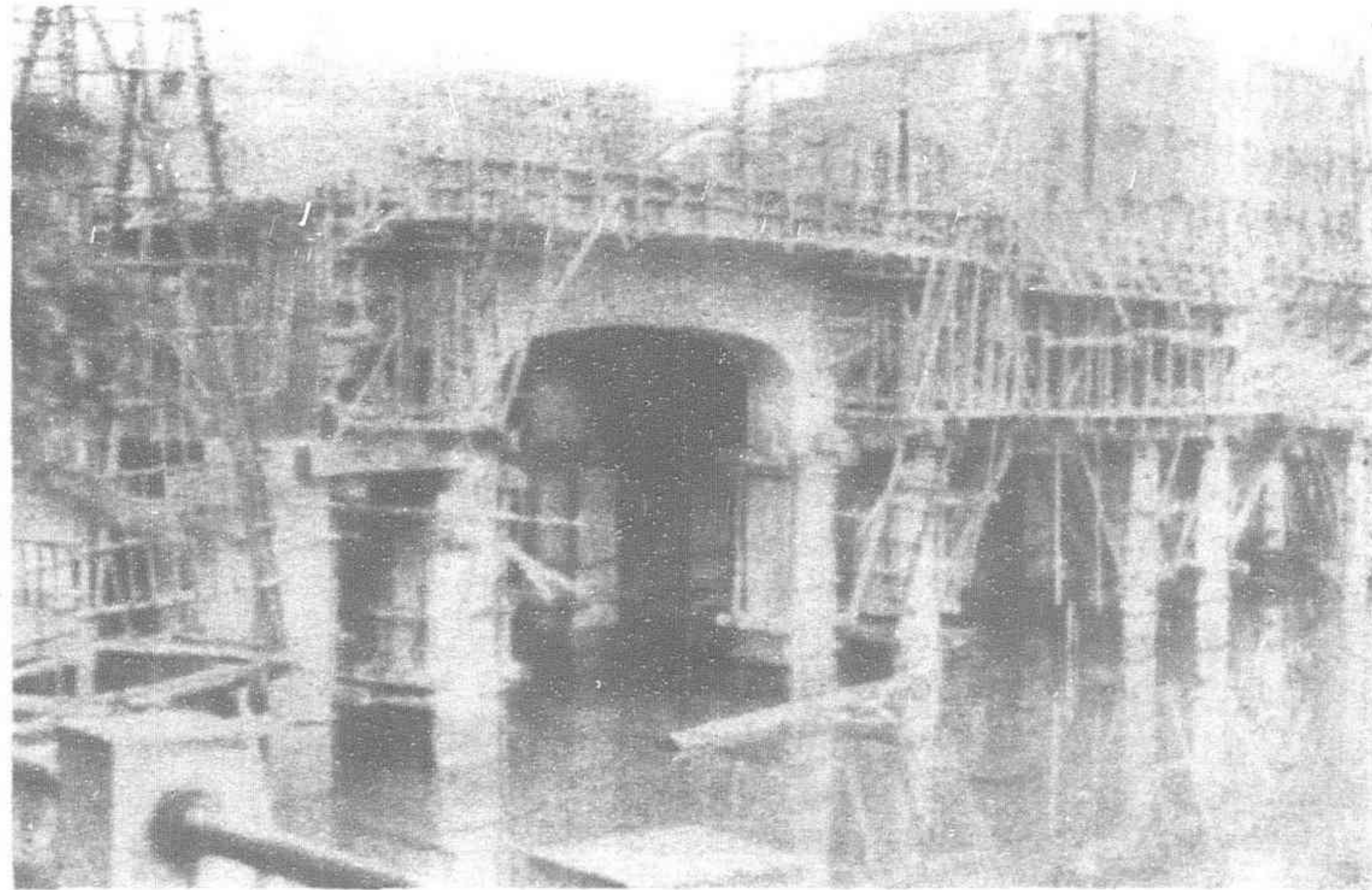
For the first time in 1932 electric cars were operated on the Sobu Line running between Ryogoku (Tokyo) and Ichikawa. Since then, electrification has been extended to the city of Chiba. Between Ryogoku and Hirai on this line, the electric interurban cars have a six minute headway. With more than 200 trains daily of different speeds operating along this line, including electric cars, regular passenger trains and freight trains, congestion has become severe. The population along the route the Sobu Line serves has mounted annually to complicate the situation. To relieve the congestion on the existing two tracks, an additional

double-track right-of-way is being laid so that train and electric car traffic can be separated.

The tracks along the one-kilometer elevated stretch between Ryogoku and Toyokogashi are laid on soil that is exceptionally weak. In order to lighten the weight of the new elevated structure along this course as much as possible, the Larmen-type iron-frame construction is being employed. For 1.3 kilometers beyond the Toyokogashi elevated structure, improvement of the Kinshicho Station is the primary purpose of the present project. A new station at Kinshicho has already been erected facing Shinohashi Street. Platforms for the use of electric cars only have been provided.



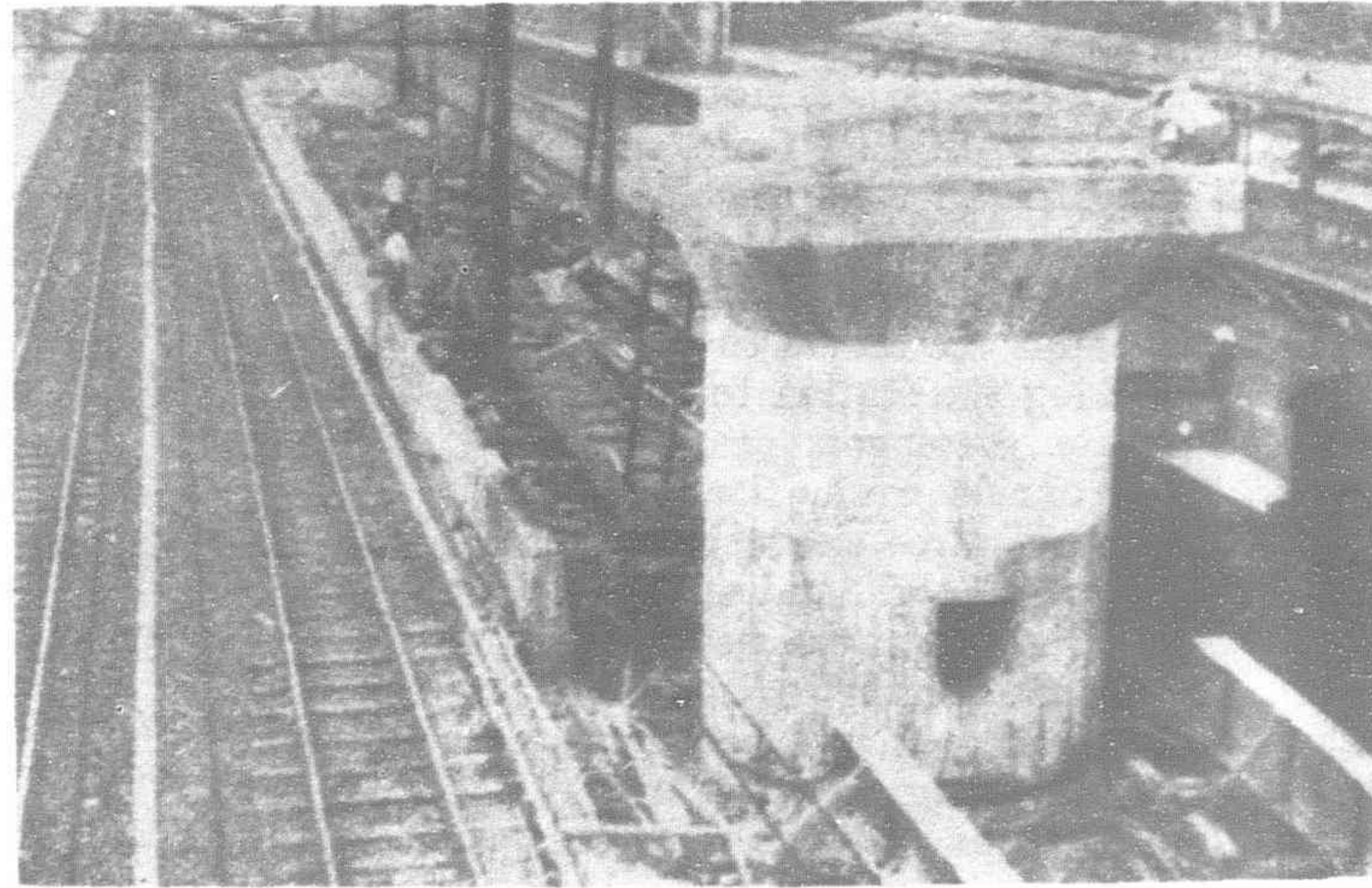
3. Third reinforced concrete elevated structure at Yurakucho Station, being built to multiple-track the Tokaido Main Line between Tokyo and Shinagawa



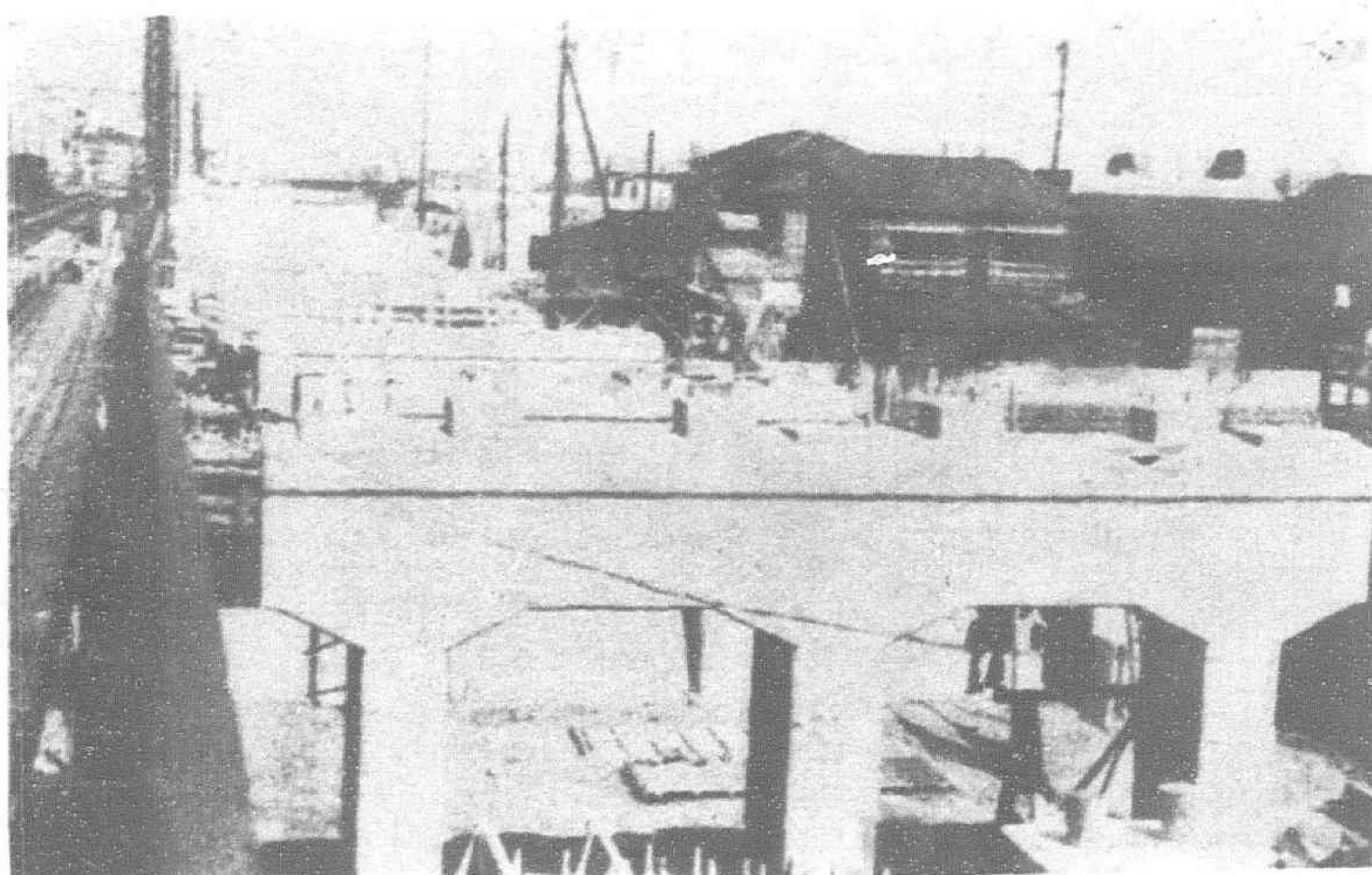
4. Reinforced concrete-slab bridge work along canal at Uchisaiwaicho, showing double-tracking construction between Tokyo and Shinagawa



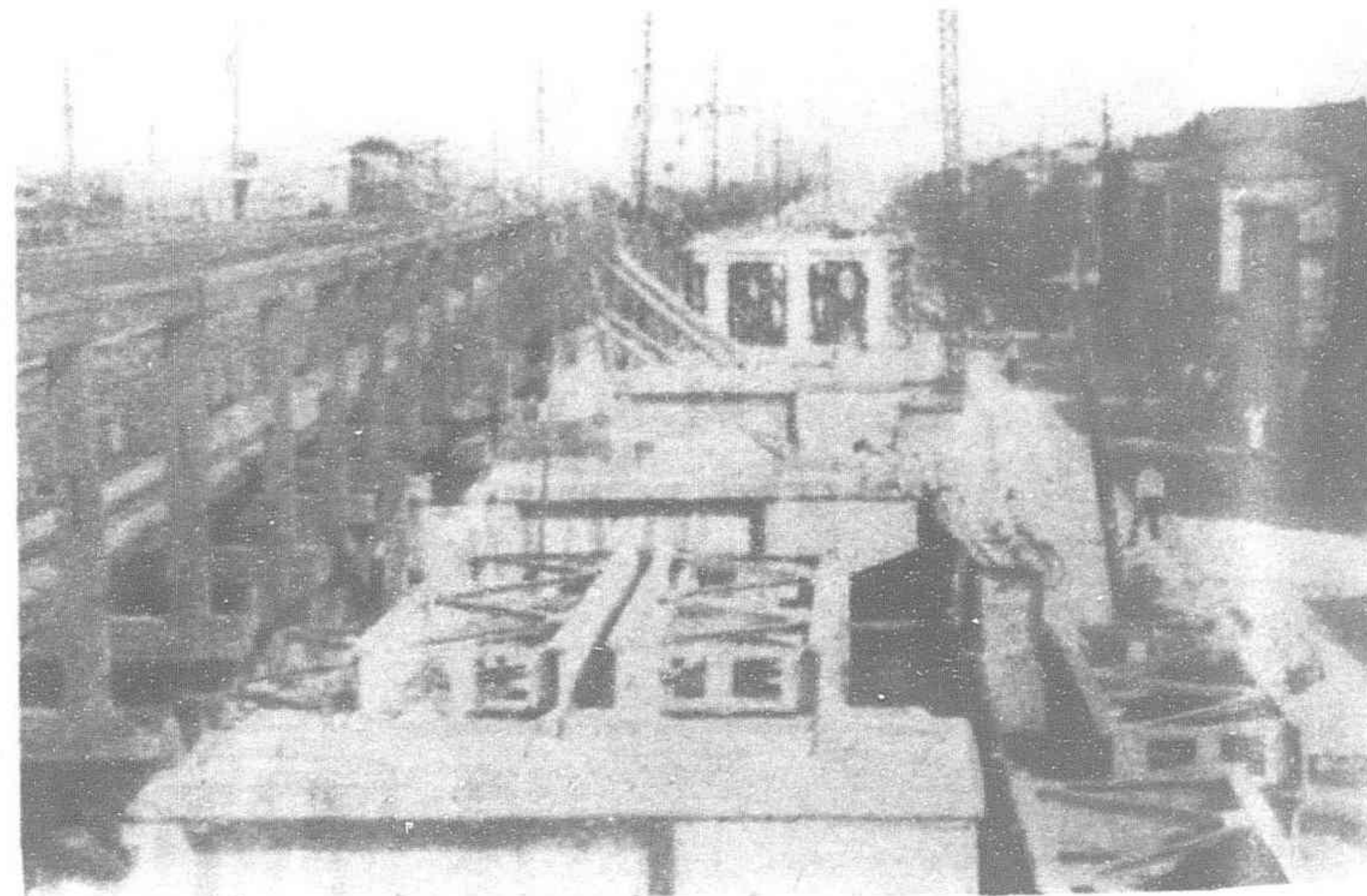
2. Excavation under way for heavy concrete-slab supporting structure for multiple-tracking at Shibaura



Huge concrete column support for overhead tracks for the Government Railway's multiple-tracking construction in Tokyo



3. Reinforced concrete elevated structure for double tracks at Midoricho 3-chome, Honjo Ward



5. Structure for double tracks between Ryogoku and Kinshicho, laid parallel to the Oyokogawa Bridge



Work along 1.6 kilometers ending at the former Nakagawabashi river bank is being undertaken to improve the facilities at the Kameido Station, where besides the old platforms, new ones will be constructed for electric cars.

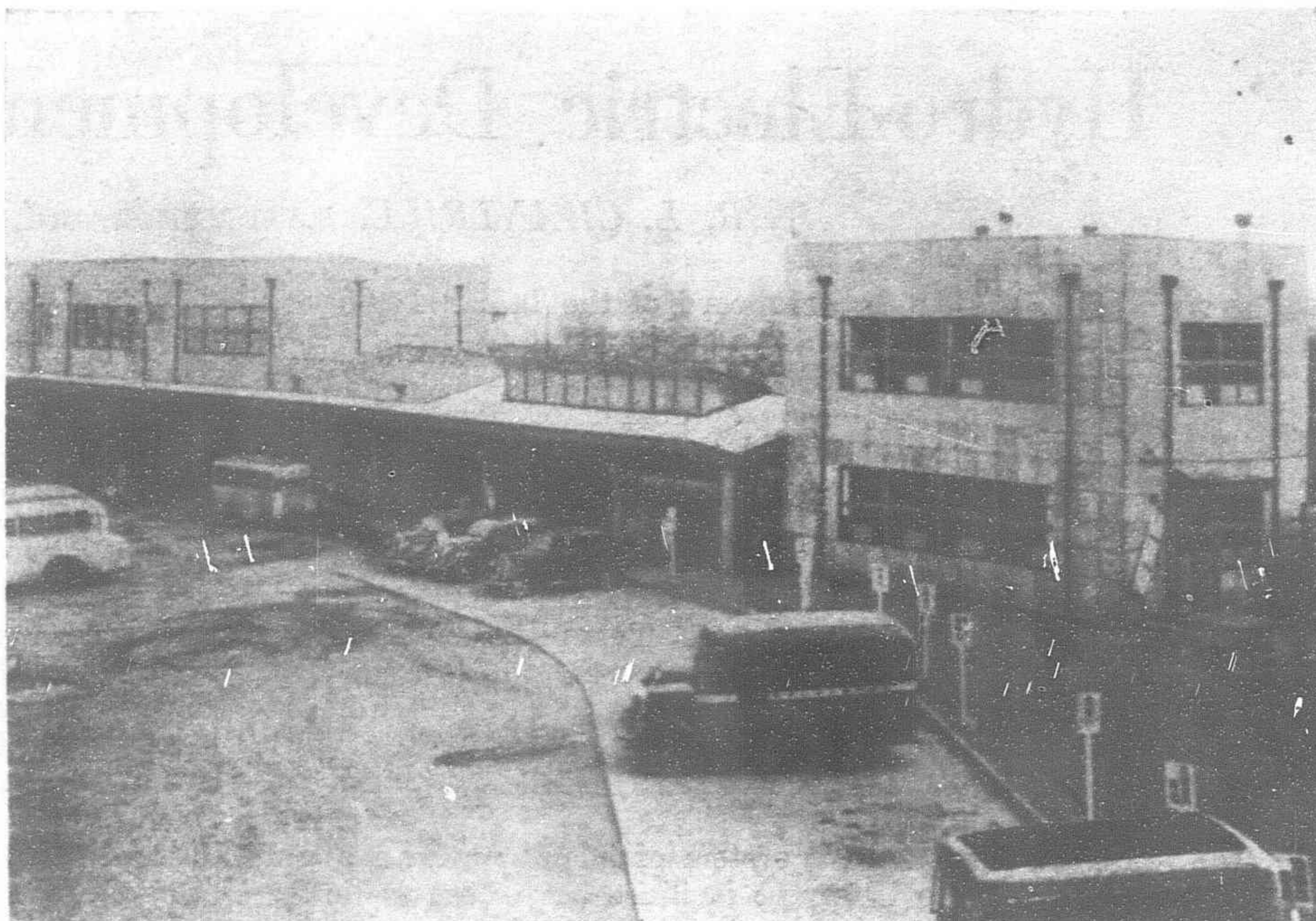
The one-kilometer stretch ending at the Hirai Station consists chiefly of the partial improvement of the station platforms and the addition of side tracks for the use of freight trains.

### Chuo Line Program

Since electric cars were first run in 1939 from Tokyo to Asakawa on the Chuo Line, one double-track line along most of the route has served all types of trains. Heavy commuting on this line owing to the city's expansion westwardly taxed the line beyond capacity between Tachikawa and Asakawa, where double-tracking is nearing completion.

Improvement of the Chuo Line includes reconstruction of the stations at Hino, Toyoda, Hachioji and Asakawa, the erection of new bridge structures at Asakawa and Tamagawa, and the construction of a new station for electric cars between Hachioji and Asakawa. Work on this line is more than one-half finished, with the stations at Hino and Toyoda, and the Tamagawa and Asakawa bridges already completed. Double tracks have been laid from Tachikawa to Toyoda.

In reconstructing the Hachioji Station on the Chuo Line, the former wooden station building has been replaced with a reinforced concrete structure facing a wide asphalt-paved plaza. During reconstruction work here the position of passenger and freight

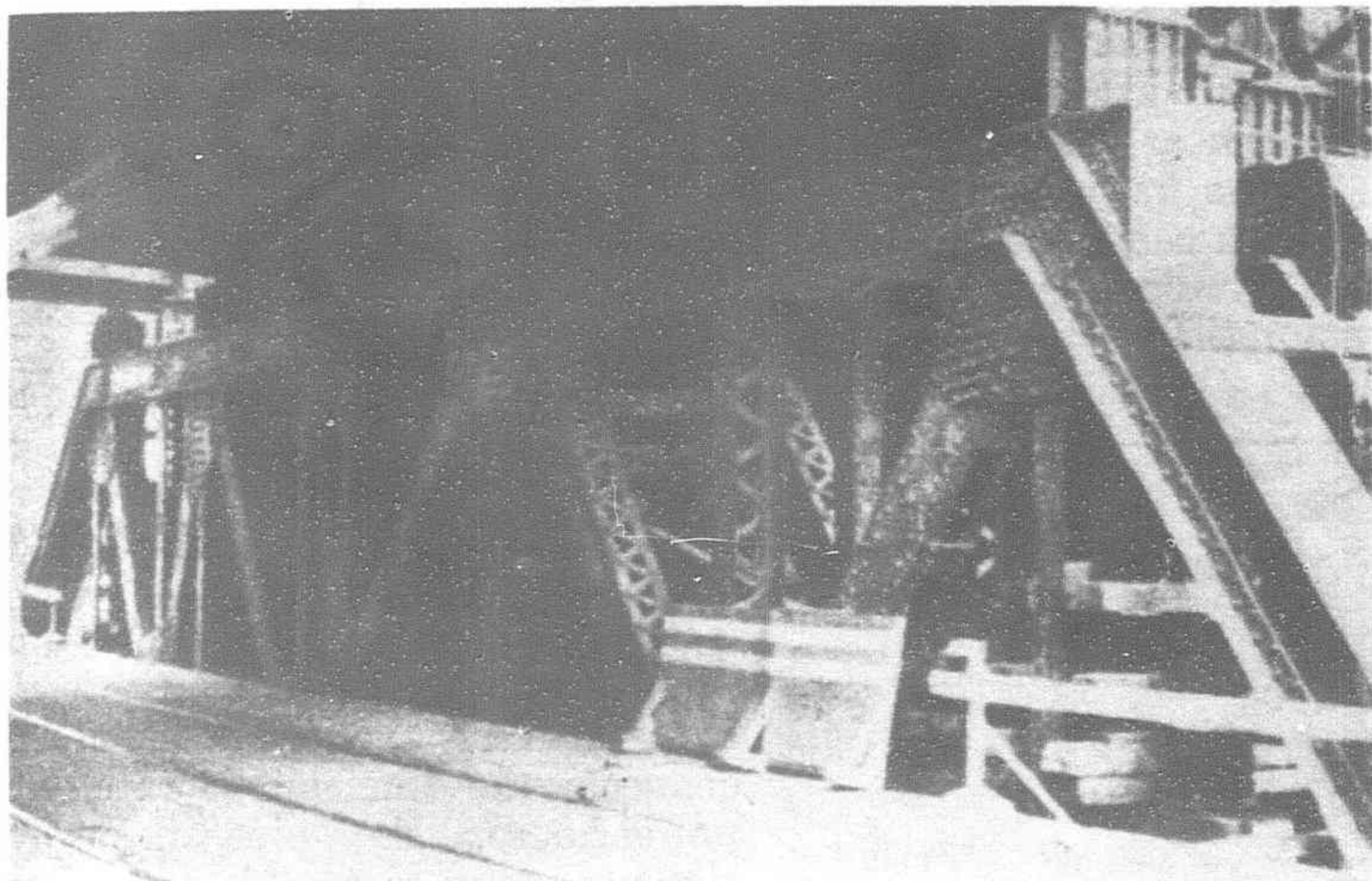


The reconstructed, ferro-concrete Hachioji Station in the suburbs of Tokyo, with its spacious asphalt plaza in the foreground

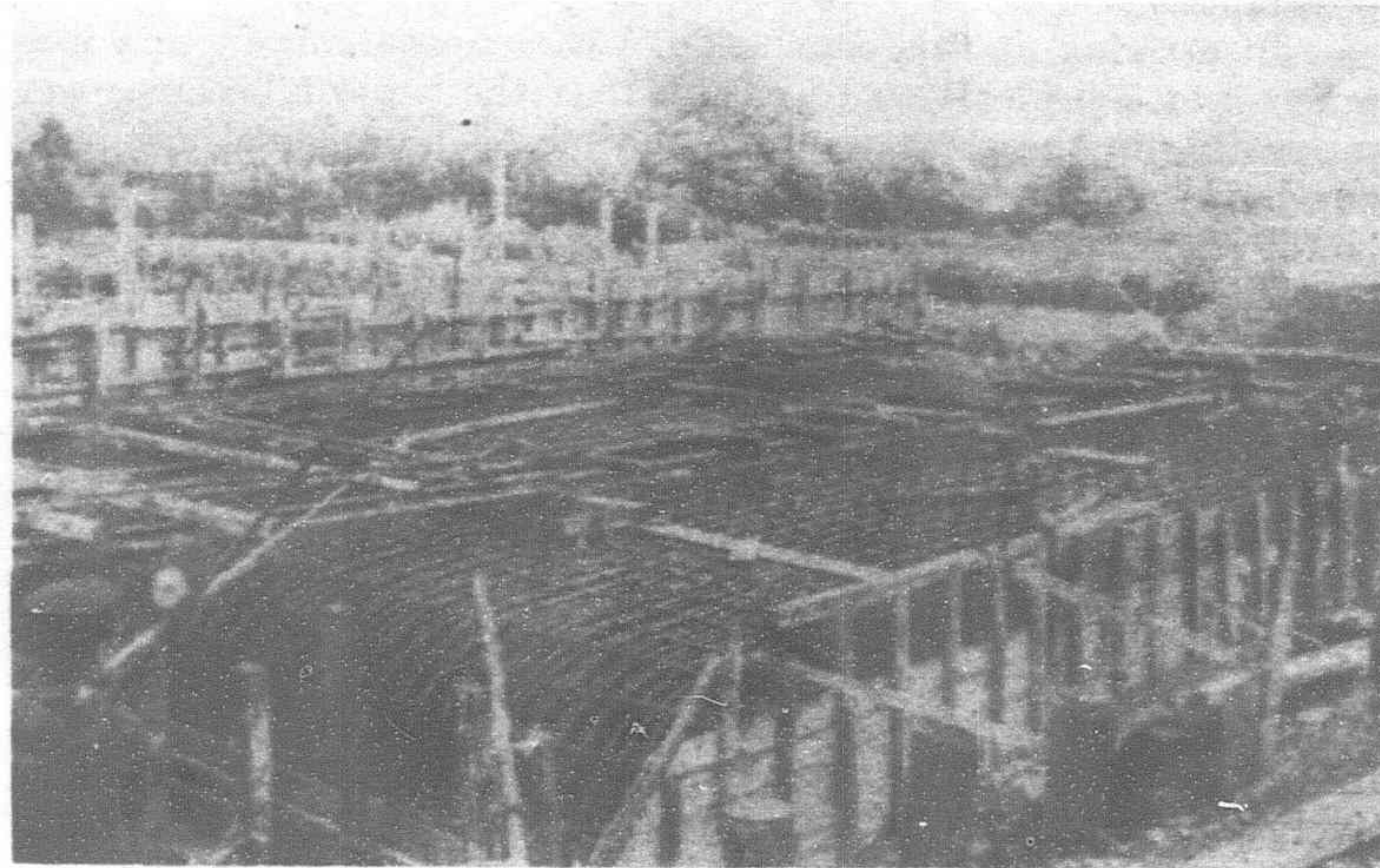
train tracks was completely changed.

At Asakawa, which is the terminus for the interurban electric cars, exclusive platforms and sidetracks are being put in.

A petition from residents living in the districts between Hachioji and Asakawa has caused a new station for electric cars to be planned between these two points.



Where the recently completed Shimbashi-Shibuya Subway passes underneath the Government Main Line at Shimbashi Station; trusses to support the elevated railway structure were set on a base below the floor level of the tunnel while construction was in progress



Long iron slabs being framed for the elevated railway structure to span the National and Prefectural Highway No. 192, which passes Asakawa Station in Tokyo's suburbs. This will be one of the largest Larmen-model reinforced concrete land bridges in Japan

## WORLD'S BIGGEST AIRPLANE TUNNEL

The world's largest wind tunnel for the testing of aircraft will be built in the proposed plant to be established at the Central Aviation Institute at Mitaka-mura in the suburbs of Tokyo.

The wind tunnel, the work on which is to be started next year, will have a blowing aperture 15 meters in diameter and will require 40,000 horse-power engines to operate. It will be possible, it was stated to test full-size planes in the tunnel under conditions equivalent to flying at a speed of 1,000 kilometers an hour.

The Institute's plant, which will include other wind tunnels, laboratories, an aircraft manufacturing factory, a training school and an aerodrome, will be completed within five years at a cost of ¥51,000,000. The plant will cover about 50 acres.

At the aeroplane manufacturing factory, the Institute, in co-operation with military authorities and civic companies, will build super-high speed planes, stratosphere planes and other types of aircraft on a large scale.

Two training schools will be established. One will be a middle school, the other a college class. Fifty students a year will be allowed to enroll in the schools.

Kinetics will be studied at the various laboratories to be built. Stratospheric equipment, aeroplane bodies, propellers and fuel will be studied at the various laboratories. Several thousand employees at the Institute will be provided with modern accommodation including apartment houses, parks and sports fields. About 200 acres will be set aside for the Institute's residential and recreation area.



# Hydro-Electric Development in Travancore

By R. L. CHANTRILL, B.SC., M.I.E.E., and W. H. Thompson

**A** LONGSIDE the western seaboard of the Indian Peninsular runs a range of hills known as the Western Ghats. This range terminates roughly at Cape Comorin, the southernmost point of India. An approximately triangular area is enclosed between these hills and the Arabian Sea, with Cape Comorin as the apex. This area of 7,800 sq. miles is known as the State of Travancore. The State has been known for many years for its high literacy and enlightened administration.

The present capital of the State is Trivandrum, and the country is well served by a number of ports. The ports at Alleppey, Quilon and Trivandrum are fair-weather ports and are frequently closed during the south-west monsoon. The port of Cochin in the north end of the State is open the whole year round, and provides good and safe facilities for the discharge and shipment of merchandise.

The State has an extensive system of inland waterways and roads. Full use of these transport facilities have been made for the purpose of delivering to site the electrical machinery, apparatus and transmission line material for the Pallivassal Hydro-Electric Project. In most cases both roads and waterways were used.

Mr. K. P. P. Menon, the present Chief Electrical Engineer to the Government of His Highness the Maharaja of Travancore, carried out a large number of investigations on possibilities of hydro-electric development within the State boundaries as a result of which his Highness the Maharaja's Government came to the conclusion that the development of a scheme utilizing the water resources of the High Range possessed the most economic possibilities.

In arriving at this conclusion, various economic factors were taken into consideration to ensure that the project becomes self-supporting in the shortest space of time. The scheme now being developed is not necessarily the largest of the potential water power resources in the State.

The present scheme utilizes the head available in the Munnar River, after it leaves the High Range Hills to fall in a series of cascades down to the Travancore plains below. This river draws its water from the catchment area of the Kanan Devan Hills of the High Range of the Western Ghats in Travancore. These hills have areas possessing some of the highest rainfall along the western seaboard of India, thereby ensuring a comparatively plentiful supply of water from a relatively small catchment area.

The first stage comprises the installation of the necessary machinery, civil works, etc., with transmission lines extending as far as Alwaye, Alleppey and Quilon, with the generating plant capacity fixed suitable for supplying the initial load served by the transmission system. Originally this scheme comprised transmission lines from the generating station to the switching station at Kothamangalam, with further lines branching off to Alwaye in the west and Pallam in the south. Later the Maharaja's Government sanctioned the extension of the first stage of the project to include further transmission lines south of Pallam to Mavelikara and Kundara, with lower voltage lines from Mavelikara to Alleppey and from Kundara to Quilon and Punalur.

Thus the first stage of the scheme covers a fairly considerable portion of the State's total area, and it has been designed so that transmission system extensions can be added easily to distribute the supply of electricity to further areas, as and when such extensions are justified by load.

In addition to the power potentialities in the ultimate development of the existing site, there are other sites within the State which can be taken up and connected in to the present system.

The first hydro-electric scheme takes its name from the Pallivassal Tea Estate, through which the pipe line passes on its way from the forebay to the power house. The maximum capacity to which the present power station can be extended is limited by the amount of water which can be stored economically in the hills to supplement the minimum flow of the river; this capacity will be about 25,000 kw. The ultimate development of this site will utilize the waters discharged into the present tailrace in a further drop of the Munnar River downstream of the present power house.

## Hydraulic and Civil Works

The off-take of the Munnar River has been located to make use of the largest possible catchment area from the Kanan Devan Hills, consistent with the economic utilization in the first stage of the maximum head available in the fall of the river. This catchment area comprises the western slopes of the Kanan Devan Hills, which have some of the highest annual amounts of rainfall of the Western Ghats. Some of the various tributaries of the Munnar River have suitable sites for dams to impound and conserve the high monsoon run-off in the catchment area. Such storage reservoirs will be built as and when required by load conditions to supplement the minimum flow of the river during the dry months.

The water of the river is decanted by a weir and then passes through a channel on its way to the tunnel and forebay. It was found impracticable to run an open or protected channel along the mountainside to the forebay, because of the crumbling nature of the surface rock. For this reason a tunnel, approximately 10,000 feet long, has been built to connect the offtake with pipe line forebay and surge shaft.

A pipe line, consisting of two separate pipes, each 7,700 feet long, in parallel for the first installation, connects the tunnel exit with the power house. Each pipe will supply the necessary water for one 6,000 b.h.p. turbine.

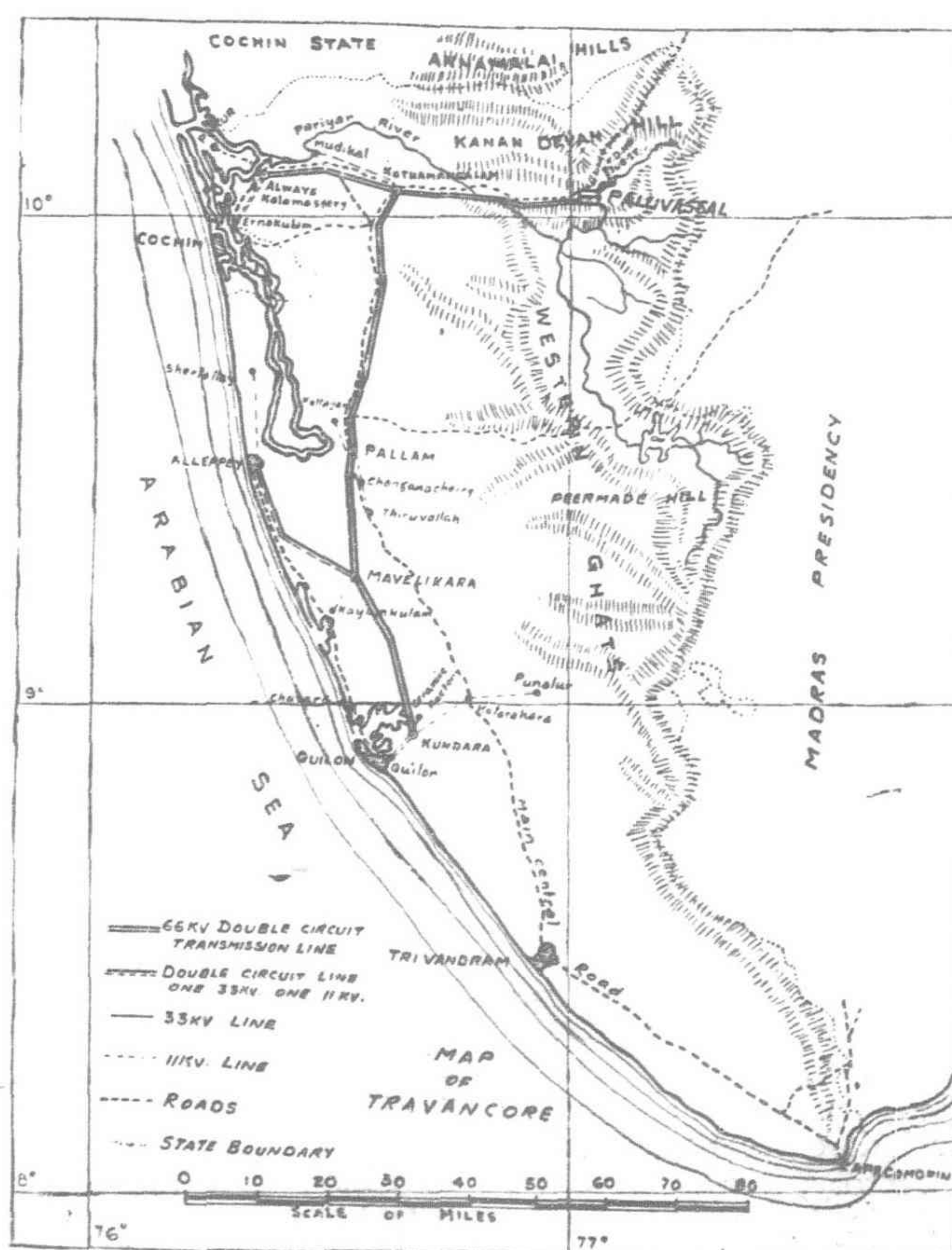
The level of the weir crest in the Munnar River at the offtake is about 4,760 feet above sea level, whilst the tailrace is approximately 2,000 feet below (2,750 feet above sea level approximately).

This produces a net effective head of 1,877 feet at each turbine nozzle.

The power house is located on rock on the banks of the Munnar River, with the tailrace arranged to discharge into the river.

## Generating Station

The first stage of the generating station comprises three 6,000 b.h.p. Pelton-type waterwheels running at 750 r.p.m. Each waterwheel is coupled directly to an alternator rated at 4,500 kw. at 11,000-volts,



Map of Travancore



with the bucket wheel bolted to the overhung alternator shaft. The Pelton wheels are connected to the twin pipe line through valves arranged for two of the three machines to be operated from the two pipes comprising the first stage of the installation.

The rise of pressure in the pipe line and the variations of speed of the generating units are kept within reasonable limits by special design of the governor and the provision of deflectors for the jets of the waterwheels.

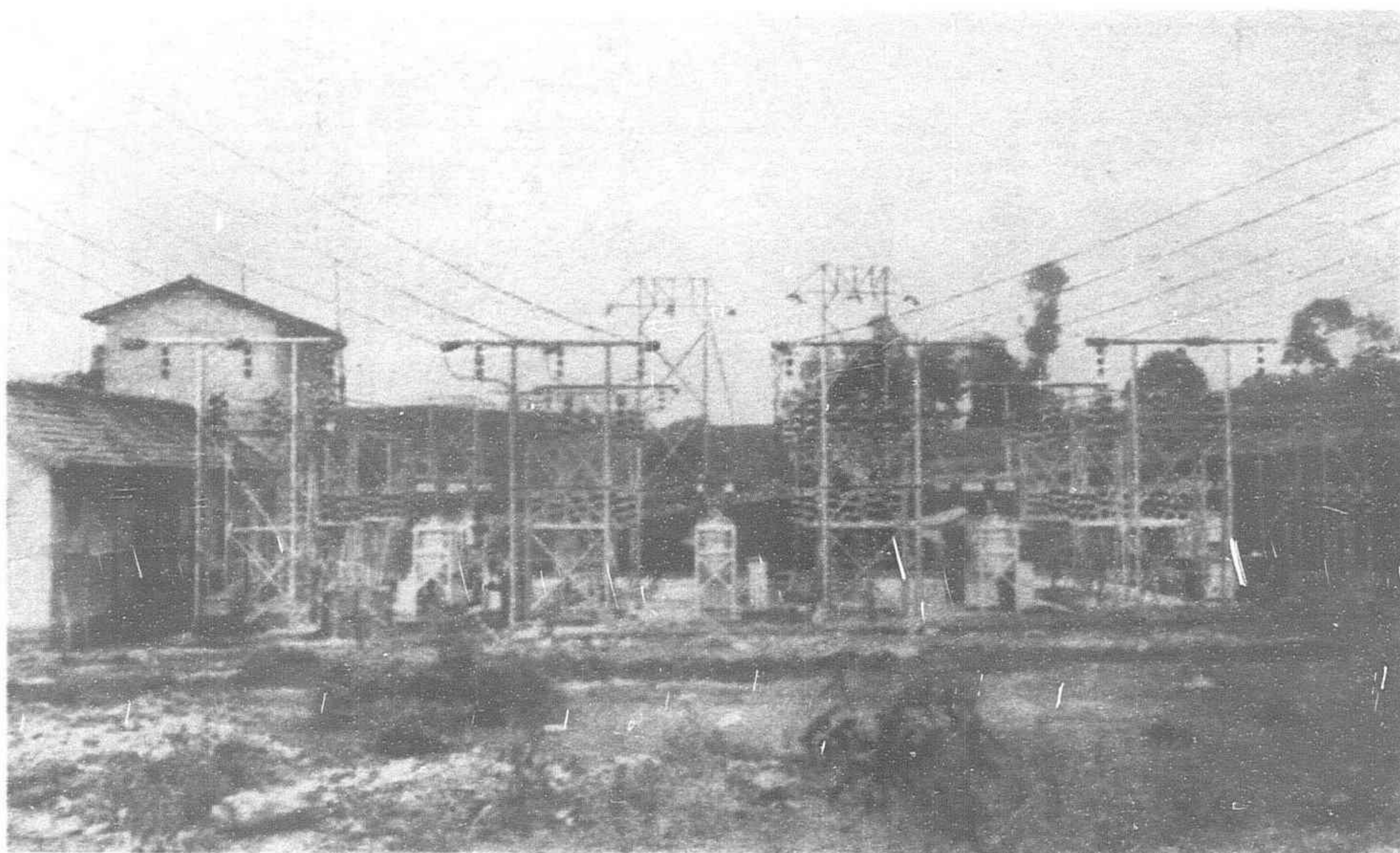
In addition to ordinary load-carrying capacity, each alternator is also designed to be capable of supplying line charging current for the transmission system at the leading power factor usually associated with such systems under no-load conditions. Mechanically operated triple-pole air break isolators, suitably interlocked, enable each alternator to be connected direct to one step-up three-winding 5,000 kva transformer. These isolators in conjunction with a transfer bus-bar also provide the facility of connecting any one alternator to any one of the three transformers. One winding of each transformer is rated at 66,000-volts for transmitting power down to the plains, whilst a third winding is rated at 11,000-volts for transmitting power to the tea estates in the Kanan Devan Hills. This third 11,000-volts winding is introduced to avoid direct connection of overhead transmission lines to the alternator windings.

The three 5,000 kva outdoor transformers with the associated 66,000-volts switchgear have been placed out-of-doors alongside the power house with the outgoing double circuit 66 kv transmission line connected direct to this transforming station.

### Transmission Lines

The layout of the transmission system is indicated on the attached map, and comprises :—

- A double-circuit 66,000-volts line from Pallivassal to Kothamangalam, 32 miles long.
- A double-circuit 66,000-volts transmission line from Kothamangalam to Alwaye, 19.5 miles long.
- A double-circuit 66,000-volts transmission line from Kothamangalam to Pallam, 37.5 miles long.
- A double-circuit 66,000-volts transmission line from Pallam to Mavelikara, 24 miles long.
- A double-circuit 66,000-volts transmission line from Mavelikara to Kundara, 22 miles long.
- A double-circuit 33,000-volts transmission line from Mavelikara to Alleppey, 26.5 miles long (one circuit is operated at 33 kv., whilst the other will be operated initially at 11 kv. for local distribution; the towers carrying this line are spaced for 66,000-volts so as to permit raising the voltage of the line at a later date).
- A double-circuit 11,000-volts transmission line from Power House to High Range, two miles long.
- A single-circuit 11,000-volts transmission line from Alwaye to Parur, nine miles long.
- A single-circuit 11,000-volts transmission line from Alwaye to Kalamasserry, 3.4 miles long.
- A single-circuit 11,000-volts transmission line from Kothamangalam to Mudikal, 12.72 miles long.
- A single-circuit 11,000-volts transmission line from Pallam to Kottayam, 2.7 miles long.
- A single-circuit 11,000-volts transmission line from Pallam to Tiruvalla, 11.8 miles long.
- A single-circuit 11,000-volts transmission line from Mavelikara to Kayamkulam, six miles long.
- A single-circuit 11,000-volts transmission line from Alleppey to Sherthallay, 13 miles long.
- A double-circuit 11,000-volts transmission line from Kundara to Quilon, ten miles long.
- A single-circuit 11,000-volts transmission line from Kundara to a Ceramic factory, 1½ miles long.
- A single-circuit 11,000-volts transmission line from Kundara to Punalur, 20 miles long.



A 66 kv mesh connected substation at Kothamangalam

A single-circuit 11,000-volts transmission line from Quilon to Chavara, 8½ miles, plus 2½ miles of cables.

A single-circuit 11,000-volts transmission line from Pallam to Kottayam, four miles long.

The 66,000-volts lines consist of stranded copper and cadmium copper conductors, carried on double circuit towers in vertical formation with a circuit on each side. For a distance of approximately one mile outside each substation the configuration of the conductors is changed to horizontal spacing, with single circuit towers and two ground wires per circuit.

The 33,000-volts line from Mavelikara to Alleppey has been built on 66,000-volts towers to permit the line voltage being raised at a later date. All the 11,000-volts transmission lines are carried on teakwood poles extracted from the teak forests of Travancore. A plant has been installed for treating the poles by the Ascu process to make the poles resist attack by termites.

In the Hills Section of the 66,000-volts transmission lines from Pallivassal to Kothamangalam, the lines pass through very dense jungles inhabited by roaming herds of wild elephant in addition to other game. Special precautions have been taken to protect the lines from damage by elephants. These precautions take one of two forms :—

- (a) Elephant trenches round the bases of the towers about 7-ft. deep and 5-ft. wide, in places where the ground permits such trenches to be dug.
- (b) Spikes grouted into the face of the rock where the towers have been erected on sheet rock.

### Substations

Switching stations have been provided at :—

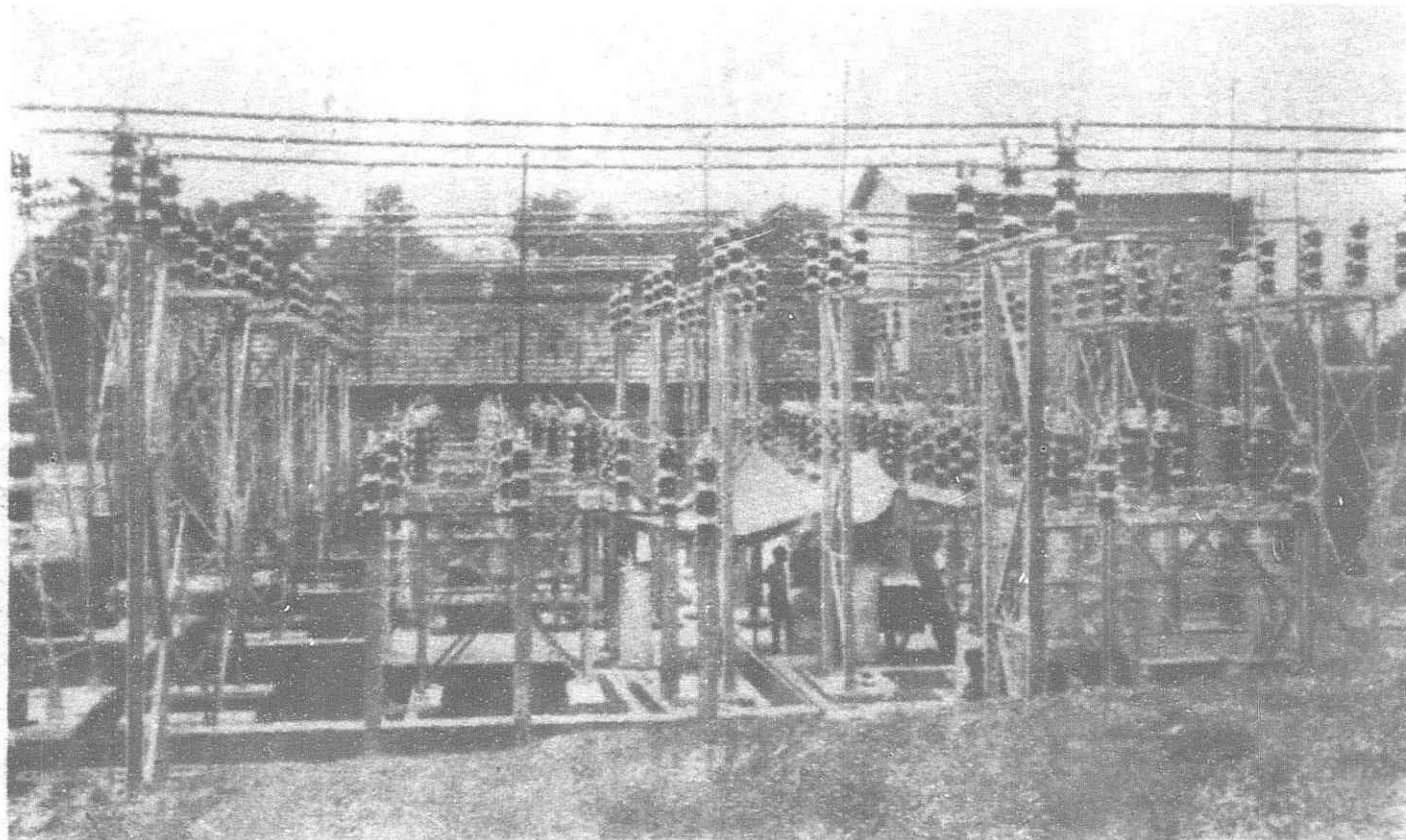
- Kothamangalam to control the 66 kv branch line to Alwaye, and the main 66 kv trunk line to Pallam ;
- Mavelikara to control the 66,000-volt trunk line and the branch lines at the lower voltages to Alleppey ;
- Kundara to control the present terminus of the 66 kv trunk transmission line.

Each one of these switching stations is also provided with transformers for supplying the requirements of the local load through the lower voltage branch lines radiating from these stations. In addition, 66 kv transforming stations have been provided at Pallam and Alwaye, and a 33 kv station at Alleppey with 11 kv transforming stations at Kottayam, Tiruvalla, Changanachery, Sherthallay, Quilon, four stations forming the Alleppey distribution.

Three-phase transformers have been utilized throughout for stepping down the voltage and the following capacities have been provided :—

- Kothamangalam—Two 500 kva units ratio 66/11 kv
- Pallam and Alwaye—Each with two 2,000 kva units ratio 66/11/11 kv
- Mavelikara—Two 3,500 kva units, ratio 66/11/33 kv





Another view of the Kothamangalam substation taken at right angles

Kundara—Two 2,000 kva units, ratio 66/11/11 kv

Alleppey—One 1,250 kva unit, ratio 33/11 kv

Quilon—Two 250 kva units, ratio 11/3.3 kv

Each of the 11 kv substations has either a 125 kva or 250 kva unit, ratio 11,000/415-volts.

In the case of three-winding transformers, the 66 kv windings are star connected with each neutral point solidly earthed. Each 3,500 kv transformer has a 33 kv winding star connected with the neutral point earthed through an arc suppression coil; the 11 kv winding is connected in delta to suppress any harmonics which may otherwise arise. This 11 kv tertiary winding is connected through the substation switchgear to an earthing transformer, so as to provide the 11,000-volt system with an earthed neutral point. In the case of the 2,000 kva transformers, each main 11 kv secondary winding is star connected and earthed solid, whilst each tertiary 11,000-volt winding is rated at 500 kva and is connected in delta, this delta connected winding carries no load.

With the exception of Kothamangalam station, there are 66 kv neutral points solidly earthed at each one of the other 66 kv stations.

The 66 kv switching and transforming stations have all been laid out on the mesh principle; in many cases only the minimum amount of equipment has been installed, and the mesh will be completed at some later date when the stations are extended. A complete mesh has been installed at Kothamangalam and Mavelikara.

### Special Climatic Conditions

In supplying apparatus for this scheme, many points of special interest had to be provided for in order to make the apparatus meet satisfactorily the exigencies of the climate. During the south-west monsoon, which lasts from May to September, the atmosphere possesses exceptional humidity throughout the day and night. This humidity is frequently at dew point for days on end. Special measures had to be taken to preserve the insulation value of the dielectric strength of materials used in the construction of the outdoor apparatus. Outdoor insulation had to be arranged so that the desired insulation values are maintained both during conditions of extreme humidity and during the dry period, which precedes the south-west monsoon, when sun temperatures in excess of 150°F. have been recorded.

To protect the apparatus as far as possible from the vagaries of the climate, the following special features were adopted:—

- (a) A heater element inside each oil circuit breaker mechanism box to maintain the air temperature well above dew point, even when the outside air has a humidity approaching the dew point.
- (b) A heater in each outdoor terminal box for the same reasons as described under (a).
- (c) A heater in each outdoor oil circuit breaker tank to maintain the top 2-in. level of oil approximately 10°C. above that of the surrounding air, thereby ensuring that the air

immediately in contact with the oil is at a temperature well above the dew point and is therefore reasonably dry.

- (d) A heater in each outdoor power transformer conservator oil tank to serve the same purpose as that described under (c) above.

### Co-relation of Insulation

The transmission line varies considerably in its height above ground. This has necessitated insulating the line so as to prevent as far as possible flash-over during thunderstorms, and at the same time the insulation level of the approach lines had to be co-related so as to avoid surges of exceptional magnitude which originate in lines reaching substation apparatus with a magnitude likely to injure the insulation in the stations. To take care of these conditions, both in the hills and plains, outdoor switchgear and transformers have had their insulation values carefully co-related based on impulse strengths of the various component parts forming each station. The various typical posts, insulator strings and bushing insulators were tested at the impulse generating station of the Metropolitan-Vickers High Voltage Research Laboratory. The wave shape used for these tests was 1/50, and both positive and negative impulses were applied. The tests were carried out under the direction of Messrs. Kennedy & Donkin, who acted as Inspecting Engineers for the Government of Travancore.

Having these tests carried out in one laboratory where each piece of apparatus is subjected to impulse tests under exactly the same conditions, it has been possible to arrive at correct calibration curves, from which these impulse insulation levels of the various component parts of the system could be properly co-related so as to ensure that:—

- (a) The transformer windings have the highest insulation level.
- (b) The transformer bushings have an impulse strength lower than that of the windings.
- (c) The impulse strength of the switchgear in the outdoor stations is lower than that of the transformer windings, but higher than that of the approach lines.
- (d) The strength of the insulation in the transmission lines, apart from the approach lines, is as high as could be reasonably obtained.

In order to ensure that attenuation of impulse waves which may originate in the highly insulated overhead lines, the conductors of the double circuit lines are changed in their configuration from vertical spacing and are brought down to horizontal spacing as near the ground as is reasonably possible; these horizontally spaced lines are provided with two ground wires per circuit as against a single ground wire carried on the top of the double circuit towers.

### 66,000-volts Switchgear

The outdoor switchgear has been laid out on the mesh principle. This form of connection employs a ring type of bus-bar with oil circuit breakers arranged in the ring. Two oil circuit breakers have to be operated for a transmission line circuit or transformer to be either disconnected or connected to the station. The feature of this arrangement is that it provides complete accessibility to every insulator and piece of apparatus in the station, without having to shut down a complete station if a bus-bar insulator is to be cleaned. Similarly a breaker can be attended to without having to shut down a particular circuit. From an operating and maintenance point of view, this provides many advantages and at the same time permits a layout, which is known as a low level arrangement, maintaining the average height of the connections at a comparatively low level above ground, instead of the high galvanized steel latticed structures used elsewhere and developed originally in America.

The breakers provided for these stations are Metropolitan-Vickers type G3C/66, with each breaker fitted with a Metrovick cross jet arc control device. The oil circuit breakers were tested by the Switchgear Testing Co., Ltd., for interrupting capacity when they successfully broke short circuits in excess of 500,000



kva at 66,000-volts. The breakers are operated by centrifugal operating mechanisms from 110-volt battery supply. Current transformers incorporated in the breakers have cores containing a proportion of mu-metal, which gives good sensitivity and stability of the protective gear on heavy through-fault currents.

The high voltage isolating switches are Metropolitan-Vickers type AA2. These are particularly suitable for the outdoor duty in Travancore, because of the type of high pressure contact embodied in their design. These switches are operated by suitable hand operating mechanisms and each mechanism is provided with auxiliary switches to provide indication on the control board.

The line isolators are provided in addition with earthing switches also mechanically operated. The operating mechanism of the earthing switches is interlocked with that of the line isolators so as to prevent any possibility of earthing the line, except when the line isolator is open.

### 11,000-volts Switchgear

The 11,000-volt switchgear at the 66 kv and 33 kv stations, as well as in the four substations in Alleppey, and the substation at Quilon, comprises small 11 kv metal-clad draw-out indoor equipments. This ensures that the control of each station is under the direct and immediate supervision of the operators who are suitably protected from the heavy monsoon weather. The various outdoor circuits are connected by means of paper insulated cables.

### Protective Gear

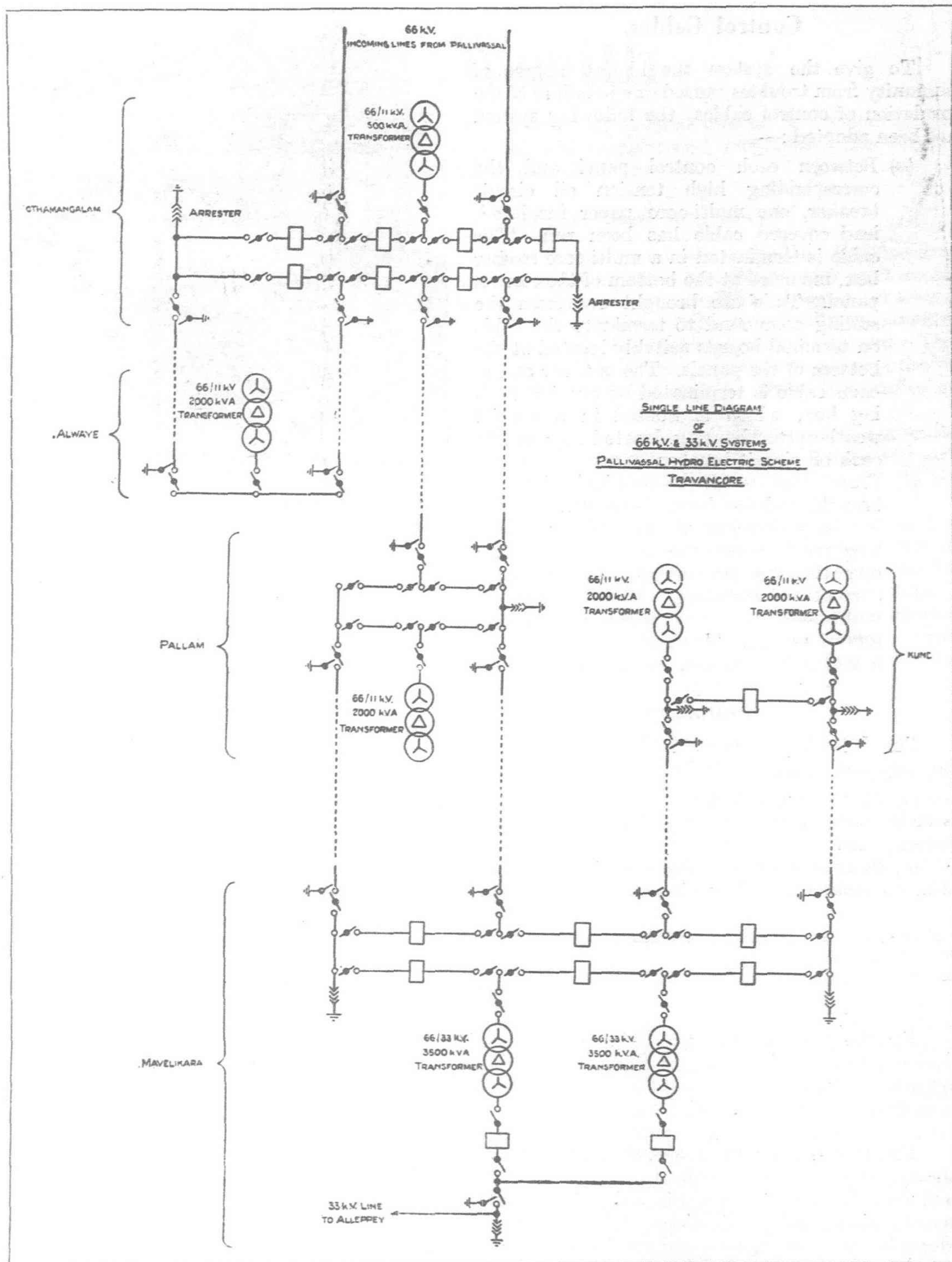
The double circuit 66 kv transmission lines have been provided with parallel feeder protective gear, using type "NFD" relays. In addition, each 66 kv circuit is provided with back-up over-current protection. The 33 kv transmission line from Mavelikara to Alleppey will be protected by an arc suppression coil tuned in for the particular length of line in service. The arc suppression coil is of non-resonating type; this permits accurate tuning and ensures continuity of supply being maintained to Alleppey even in the event of earth fault trouble on the line.

All other circuits are provided with overcurrent protection having inverse time limit features.

The protective gear for the overhead lines was subjected to special tests by Messrs. Kennedy & Donkin. For these tests a set-up was made to represent as nearly as possible service conditions, the relays being connected up with the actual bushing type current transformers which would be used in service. By these means the sensitivity and stability values obtained can be taken as representative for actual service and not simply test conditions.

The following relays were used:—

(a) The parallel feeder protective relays are Metropolitan-



Single line diagram of 33 kv systems, Pallivassal hydro-electric scheme, Travancore

Vickers type "NFD" attracted armature pattern and are of the differential directional type; these relays are used in conjunction with a type "AK" escapement pattern relay for time discrimination.

(b) For over-current protection and for standby protection, Metrovick type "PB" and "NP" relays are used.

### Control Boards

The Control Boards have been located in small control houses adjacent to the outdoor switchgear. Special attention has been given to seal off all instruments and meters so that insects cannot penetrate into the cases.

All panel wiring has been carried out with cambric insulated, fireproof treated, single-core cable, as this has been found particularly suitable for the type of climate experienced in Travancore.



## Control Cables

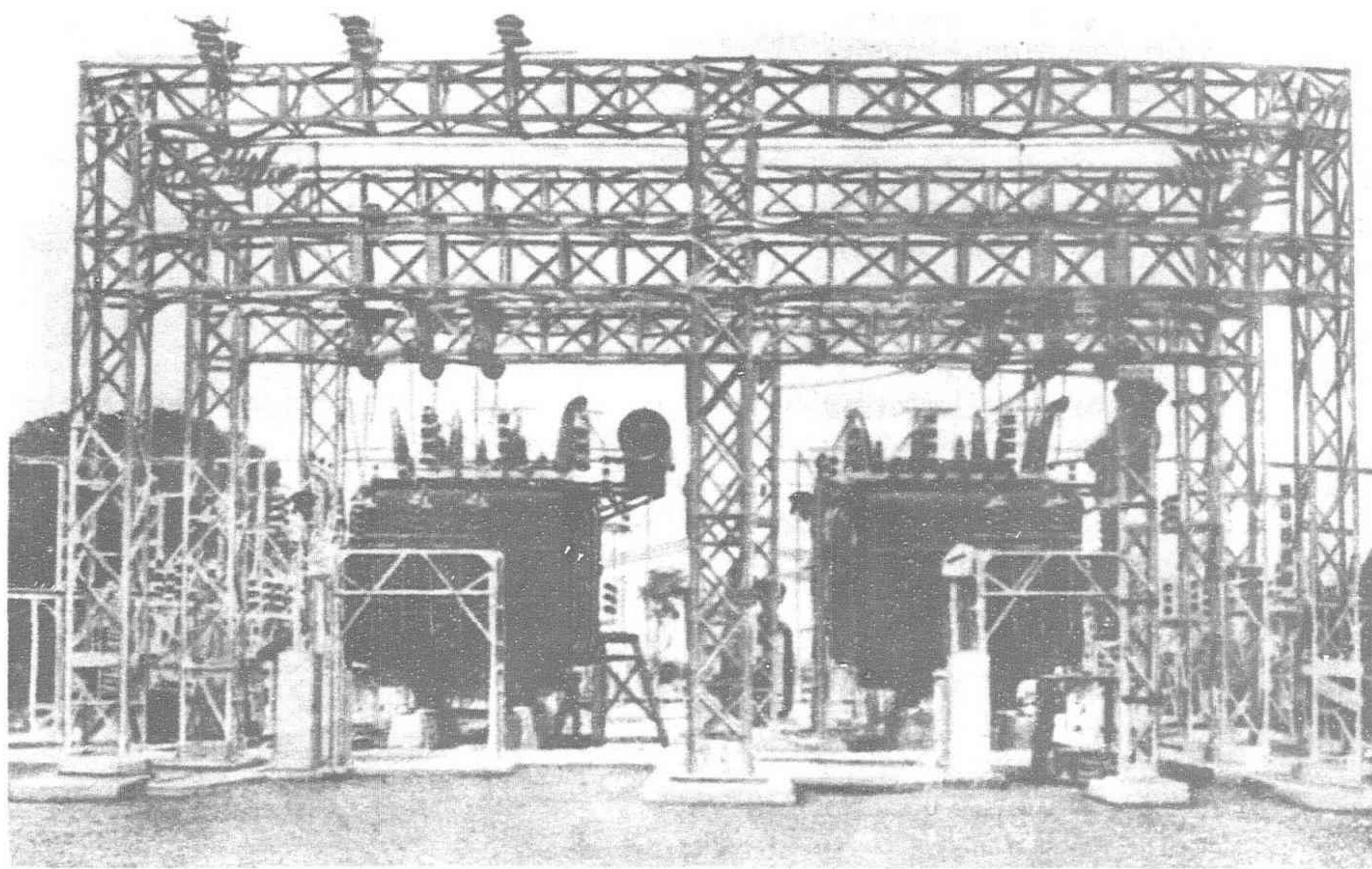
To give the system the highest degree of immunity from troubles caused due to failure of the insulation of control cables, the following system has been adopted :—

- (a) Between each control panel and the corresponding high tension oil circuit breaker, one multi-core paper insulated, lead covered cable has been run. This cable is terminated in a multi-core sealing box, mounted at the bottom of the control panel. Tails are brought out from the sealing compound to terminate the cable on terminal boards suitably located at the bottom of the panels. The outdoor end of each cable is terminated by another sealing box, which is housed in a special weatherproof housing, located adjacent to each oil circuit breaker.
- (b) From the outdoor terminal housing branch, cables have been run to the auxiliary switches of the isolator operating mechanisms, the oil circuit breaker operating mechanisms and the oil circuit breaker bushing current transformers. These branch control cables are multi-core varnished cambric insulated, lead covered, served overall. The end of each varnished cambric cable is sealed by a special terminal device.

## Suppliers of Plant

The following firms were the various main contractors, and they supplied apparatus as detailed below :—

- (a) *Power House Generator Plant.*—Messrs. Volkart Brothers as main contractors supplied Escher Wyss waterwheels and Brown Boveri plant.
- (b) *66 kv Substations.*—Associated Electrical Industries (India), Ltd., as main contractors, supplied Metropolitan-Vickers 66 kv,



A view of Mavelikara Substation, Travancore

33 kv, and low tension A.C. and D.C. switchgear, and B.T.H. Co.'s power transformers and 11 kv switchgear for the substations at Kothamangalam, Pallam, Alwaye, Mavelikara and Kundara.

(c) *33 kv and 11 kv Substations.*—The General Electric Co. (India), Ltd., supplied the material for the 33 kv substation at Alleppey and the 11 kv rural substations.

Associated Electrical Industries (India), Ltd., supplied the 11 kv terminal substation at Quilon, with B.T.H.Co.'s 11 kv power transformers and Ferguson, Pailin 11 kv metal type switchgear.

(d) *Transmission Lines.*—The 66 kv and 33 kv transmission lines were supplied and erected by Messrs. Callender's Cable & Construction Co., Ltd.

(e) *Pipe Line.*—Messrs. Harrison & Crossfield, acting for Messrs. Boving & Co., supplied the pipe line made by Messrs. Ferrum Ltd.

## CHINA GEOLOGICAL SURVEY

For the past two years, a Chinese correspondent reports, the National Geological Survey of China has been leaving no stone unturned in its investigation of China's vast underground resources in central, southwestern and northwestern province, in order that the government may fully exploit these resources.

For 1939-40, a sum of \$96,000 has been appropriated for its library, mineralogical, chemical and palæontological laboratories, field work expenses, topographic and cartographic work, geophysical investigations, and publications. The Survey will concentrate its efforts in the southwestern and northwestern provinces.

According to its official report, the institution will carry out the following investigations of mineral resources in Szechuen Province for the present fiscal year. Detailed mapping of oil fields and investigation of oil geology, study of the geology of salt, copper and coal deposits, investigation of refractory materials, and geophysical prospecting of copper and iron ores.

In Sikang, there will be carried out investigations of gold, iron, coal and other mineral deposits, as well as the torsion balance prospecting of gold deposits. To be continued in Yunnan is last year's work which consists of the search for iron ore and refractory materials, the detailed survey of bituminous coal fields, and the investigation of copper. A search for other mineral deposits in that province will be conducted, as well as electric prospecting for iron and copper deposits.

The study of manganese and bituminous coal fields in Kwangsi will be launched, and investigation made of mercury and antimony deposits in Kweichow. In Kansu and Shensi, there will be more investigation of coal fields, while in Kansu the institution will continue its survey of oil fields.

Besides working on projects which have a direct bearing on the nation's armed resistance, the institution will continue its academic research work.

The soils division of the National Geological Survey has added new laboratories and a soil conservation experiment station for carrying out its projects for the present fiscal year. Besides the soil surveys to be continued in Yunnan, Szechuen, Sikang and Kansu, laboratory work will be made on soil erosion, composition of wheat and maize plants grown in different soils, and methods of modifying soil fertility.

What was accomplished by the National Geological Survey in the past year would constitute sufficient material for a pamphlet. In the investigation of mineral deposits alone, as many as 42 separate field trips and 35 separate laboratory reports were made. Twenty-six district cities in Kwangtung, Kwangsi and Hunan had their longitudes and latitudes determined last year. Detailed maps of various regions of mineral deposits were made. In the chemical laboratory, analyses of fire clays, refractory sandstone, coal, home-made soda and many other minerals were conducted.

## Tokyo-Yokohama Canal

Construction of a 22-km. canal between Tokyo and Yokohama started in October. Ceremonies marked the occasion.

The waterway when completed will connect Tokyo with Yokohama by way of Morigasaki and the mouth of the Tama River near Haneda.

The canal will be between 600 and 700 meters wide and nine meters deep. The section of the canal from Tokyo harbor to the mouth of the Tama River is being sponsored by the Tokyo Prefecture. This section will cost approximately ¥45,000,000.



# Burma's Forest Wealth

IN a chapter devoted to the efforts made to increase the sales of Burma timber, the Report on Forest Administration in the Utilization Circle, Burma, for the year ended March 31, 1938, says:—

The Timber Research Branch has done a good deal of work to establish yon (*Anogeissus acuminata*) as a handle wood, and the timber is now well known in India.

Two thousand and two hundred yon handles were shipped to England and it is hoped that favorable reports will again be received. It is reported that supplies of good quality hickory are diminishing and it is therefore worthwhile making the British handle manufacturers aware of the good qualities of yon as a hammer handle wood.

Although there have been several enquiries no firm has yet shown very serious intentions of taking up yon handle manufacture. The Timber Research Branch workshops are not laid out especially for the manufacture of handles. Round logs have to be cut into fitches in outside sawmills and uneconomic handling charges must therefore be incurred between mill, kilns and workshops. The output is limited and if new fields are to be explored supplies to old ones must be curtailed.

Fair stocks of air seasoned yon in sizes suitable for production of handles are being built up at the Depot. The object is to provide any firm wishing to take up handle manufacture with a two years supply of seasoned stock to tide them over the period required to develop their own supplies.

## Wood for Box-making

During the year under report the Timber Research Branch paid great attention to taungthayet (*Swintonia floribunda*). Previous efforts to popularize this wood for box-making met with little success. The Burmah Oil Company, who consume a large quantity of box-shooks, were interested in a white wood. Ma-u (*Anthocephalus cadamba*) met with their requirements in all respects except price. The difficulty at present in obtaining box-woods from Japan and the present enhanced price of Japanese woods together with the Burmah Oil Company's policy of giving preference to indigenous trades, has overcome the prejudice against the pinkish color of taungthayet.

The main disadvantage of this timber is its heavy weight compared with pine. To a certain extent this is overcome by cutting the shooks thinner. Taungthayet is much superior to the Japanese box-woods. It takes nails and screws without danger of splitting and gives an attractive reasonably priced, high quality box, upon which lettering and marks, etc., stand out well.

As with yon it is not possible for the workshop to reach the low costs of production which should be obtained when the timber is dealt with on a commercial basis. Most of the taungthayet used by the workshop has had to be kiln-seasoned. This considerably increased the cost of production and should be unnecessary when the wood is dealt with commercially. A Rangoon firm is showing an interest in taungthayet and have done some experimental conversion. There are considerable possibilities for this timber in the Indian market. Furthermore the timber should make a good plywood—it veneers readily—and there are possibilities in the supply of tea and rubber boxes.

## "Pyinkado" Sleepers

The total number of pyinkado sleepers passed and shipped on behalf of the Northern Group Sleeper Pool, Lahore, during the year under report amounted to 33,817 B.G. sleepers. Of these 10,000 B.Gs and 300 special-size sleepers were ordered by the Karachi Port Trust. A trial consignment of 500 special-size pyinkado sleepers, 15-ft. by 10-in. by 7-in. was also shipped during the year to the Bombay, Baroda and Central Indian Railway, Bombay. These orders represent an export from Burma of some 2,200 tons of converted timber. The best quality of sleepers came from the Pegu Yomas.

Small quantities of floor blocks and beddings of seasoned Burma hardwoods were shipped to Rotterdam, Bombay and Madras. Efforts to market floor-blocks in the United Kingdom were checked owing to objections by United Kingdom floor-blocks manufacturers to the import of finished blocks from Burma.

A firm in Scotland which showed interest in thingan (*Hopea odorata*) was supplied with samples and quotations. The samples supplied have so far promised very well.

## Samples Sent to Ireland

At the instance of the Timber Adviser to the High Commissioner for India, London, samples of hnaw and binga were sent to the Director, Linen Industry Research Association, Ireland, for tests as possible substitutes for box-wood. Both these timbers, however, were found to be appreciably softer than Persian box-wood. They are coarser in grain and apt to splinter, which does not promise the wearing quality required for wood rollers. Other substitutes are under investigation.

At the instance of Commissioners for the Port of Rangoon two logs of kanyin (*Dipterocarpus* spp.) of exceptional length and girth from the Insein Division were supplied during the year. These logs are for use as salvage spars.

In view of the commitments of the Timber Research Branch for the Glasgow Exhibition, it was not possible to make special articles for display at the Arts, Crafts and Industrial Exhibition held at Rangoon in February 1938. Such furniture as was available in stock was displayed. Yon hammer handles, sucker-rod protectors, ploughs, box-shooks, hand samples of the commoner Burma timbers together with samples of turnery such as round trays, ash-trays, cigarette boxes, etc., formed part of the exhibits.

## Glasgow Exhibition

The decision to participate in the Glasgow Exhibition was made so late, that Timber Research Branch was somewhat handicapped in the preparation of articles for display. The choice of timber in stock was very limited, particularly so, as stocks of the standard furniture woods were lower than usual owing to the increased activity in yon and taungthayet. Furthermore, there was no time to get in special supplies of timber.

Panelling in padauk, tukkyan and yinma formed the main exhibit. Another exhibit consisted of parquet flooring in teak, padauk, pyinkado and kanyin with strip borders of thinwin and binga. A small desk and chairs in padauk were made for display in the office of the Burma Pavilion. In addition, various articles of furniture and a number of show-cases were manufactured for other departments and firms participating in the exhibition.

No further work was undertaken in connection with the beehole borer research. The biological side of the problem rests with the Forest Entomologist.

A consignment of five tons of first class seasoned timber consisting of thinwin, sit, yinma and tukkyan was shipped departmentally to a firm in Mauritius for furniture making.

A further consignment of seasoned boards amounting to about 20 tons of thingadu, kanyin, thitkado tukkyan and yinma was shipped to a firm in South Africa.

With the exception of large quantities of yon handles by the Timber Research Branch to the Indian Railways and round teak logs to the British Admiralty by the Depot and Agency Division no other exports of Burma timbers were made.—*The Rangoon Times*.

## More Japanese Midget Automobiles

The Kosoku Kikan (High Speed Engine) Industrial Company, Ltd., now capitalized at Y1,500,000, will continue to manufacture *Ohta* midget automobiles, although when the company lately became affiliated with the Tachikawa Aircraft Company, it was believed likely that manufacture of *Ohta* cars would be suspended.

Notwithstanding current complaints lodged by other midget car makers due to definite shortage of parts and material necessary for manufacture, Kosoku Kikan has approximately Y500,000 worth of parts in stock. The deficit from lack of some essential items can be covered by a portion of the concern's recently tripled capitalization.



# Engineering Notes

## AVIATION

**NEW AVIATION COMPANY.**—The proposed Japanese International Aircraft Company, subsidiary of the Kanagafuchi Spinning Company, will start business early next year, according to the *Hochi*.

The new aircraft company, which is expected to be capitalized at ¥30,000,000, will engage in the manufacture of airplanes, airplane fuel and other munition goods.

It is reported that the new company has obtained the patents of the Fiat Company, and several other aircraft manufacturing companies in Italy, and various Italian materials through the co-operation of the Italian Government.

**NEW AIR LINE.**—The early inauguration of a direct air mail and passenger service between Chungking and Rangoon is reported. Stops will be made at Kunming and Lashio.

Passenger fares are officially announced as follows:—Chungking to Kunming, \$325. Kunming to Lashio, \$550. Lashio to Rangoon, \$650. Rangoon to Kunming, £30. Rangoon to Lashio, £16. Lashio to Kunming, £14.

The Chungking-Rangoon line will be operated by the China National Aviation Corporation, which is a Sino-American concern. It is also reported that the Eurasia Line is shortly resuming the air mail and passenger service between Hongkong and Chungking.

## INDUSTRIAL

**HAIPHONG CARGOES.**—French authorities in Indo-China have officially notified the Chinese Consul-General at Hanoi that regulations restricting the removal of Chinese goods from Haiphong have been lifted, it is reported here. Only German goods are now under restrictions.

**AMERICAN ENGINEERS.**—Three American engineers, Mr. William Colwell, Mr. W. H. Goodberlet and Mr. Ralph Droughard, sailed for Japan on the motorship *Asama Maru* from San Francisco recently. They will aid in installing a complete steel rolling mill which Japan recently purchased at Wooster, Ohio.

**GREATER TSINAN.**—With a view to making Tsinan a modern metropolis the Shantung provincial authorities have established a committee to make preparations for turning Tsinan into Greater Tsinan.

The important strategic position of that city and the daily increase in its population have rendered enlargements and improvements necessary according to Chinese reports.

**HAICHOW SALT FIELDS.**—Surveys of the vast salt fields at Haichow, near the eastern extremity of the Lunghai Railway, will be undertaken this winter by the Central China Salt Manufacturing Company, a Sino-Japanese firm, in preparation for the exploitation of the salt beds beginning in May, 1940.

The salt firm, capitalized at ¥5,000,000, recently completed the necessary negotiations with the various authorities in Haichow.

**TUNG OIL SHIPMENT.**—About 1,000 to 1,500 freight cars of tung oil will be sent from Harbin to Leningrad over the Trans-Siberian Railroad in the near future if a test run proves successful. Railway transportation is planned to facilitate shipment of tung oil to Germany, which imports about 70 per cent of the total output of Manchurian tung oil and soy beans. The outbreak of the European war caused curtailment of shipments from Manchoukuo.

**HANKOW WOOD OIL.**—The Japanese Embassy has announced that all American wood oil cargoes interned at Hankow had been released by Japanese authorities.

The wood oil cargoes, the announcement said, are *en route* to Shanghai on Japanese vessels and will be transhipped to the United States from Shanghai.

The cargoes were released by the Japanese authorities at Hankow following protests from the United States Government on behalf of American paint manufacturers dependent on Chinese wood oil supplies.

**NEW CHINA HIGHWAY.**—Inaugurating another transportation system in China's south-west, it was announced that a new highway linking Yunnan with Szechuen direct will be opened to traffic early in December.

The new highway, which runs from Kunming, capital of Yunnan, to Luchow, in south Szechuen, is slightly more than 300 miles long. It will take four and a half days to complete the entire trip.

Leaving Kunming, the first stop will be at Suanwei, the second at Wein-ing, the third at Pichieh, and the fourth at Suiyung.

The Ministry of Communications will send 500 new buses for a passenger service on the new highway. It was completed some months ago, but landslides during the rainy season necessitated repairs.

Five large bridges have not yet been completed, and for the present, buses and motor-cars will have to be ferried across the rivers at those points.

**STAPLE FIBRE PRODUCTION.**—Japan's production of staple fibre cloth was nearly 13 per cent greater in September than in August, the Japan Spinning Association announced following a survey.

September output was listed at 10,784,000 square yards, or 1,222,000 square yards more than in August. Most of this increase was attributed to a greater production of sheetings which rose from 735,000 square yards in August to 6,816,000 square yards in September.

**NEW MANCHURIA HARBOR.**—With an agreement of views having been reached between the Governments of Manchoukuo and Japan on technical and business co-operation, construction of the projected Taitung Harbor at the mouth of Yalu River will be begun shortly.

The proposed harbor will be constructed at an estimate cost of ¥114,600,000 in eight years and, when completed, will be the only ice-free port in Manchoukuo, with facilities capable of handling 2,000,000 tons of cargo per year.

The construction work will be supervised by a special construction office to be shortly established, in co-operation with the South Manchurian Railway Company.

## MINING

**CHINESE TUNGSTEN.**—Possible Chinese aid to the United States Government's program for accumulating strategic wartime materials was seen when the Wah Chang Trading Corporation of New York offered to sell the Washington Government 425 tons of Chinese tungsten.

The company quoted the price of U.S.\$23.75 per ton, duty paid and delivered either from Hongkong, Indo-China or Burma. The company also offered to sell 450 tons of domestic tungsten for U.S.\$24.50 per ton.

**MANCHURIAN COAL.**—In order to cope with the ever increasing demand for coal in Manchoukuo, consequent upon the development of various industries, the Sankiang Provincial Government has decided to increase the output of coal in the province.

As a result of consultations with the representatives of the Singan, Fuhwa and Fuan Coal Mines it was decided that these mines should increase their annual output to 50,000 tons each, making a total annual output of 150,000 tons.



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